

# KV-27TX20

## RM-754

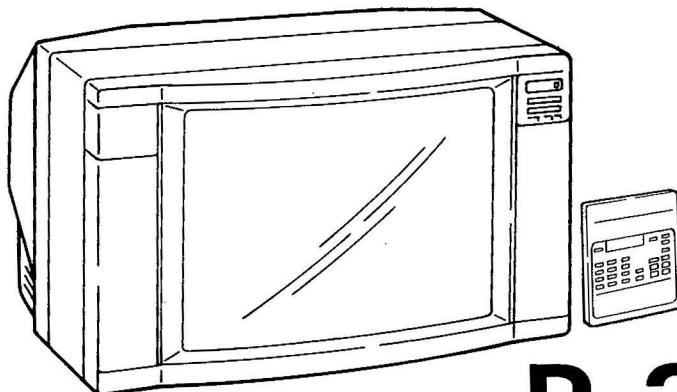
# SERVICE MANUAL

*US Model*

*Chassis No. SCC-B55F-A*

*Canadian Model*

*Chassis No. SCC-A50L-A*



## P-3A CHASSIS

**Note :** The service manual for RM-754 has been issued separately.

### MODELS OF THE SAME SERIES

KV-27TX20

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### SPECIFICATIONS

Television system	American TV standards	Power requirements	120 V AC, 60 Hz
Channel coverage	VHF: 2-13 UHF: 14-69 Cable TV: 1-125	Power consumption	175W (max.) 5W (in standby condition)
Picture tube	Microblack Trinitron tube <b>27-inch picture measured diagonally</b>	Accessories supplied	Remote Commander RM-754 with 2 size AA (R6) batteries Antenna connector
	28-inch picture tube measured diagonally	Optional accessories	U/V mixer EAC-66 Connecting cord VMC-810/820S RK-C74/150
Input	VIDEO INPUT 1 and 2 (phono jacks) Video: 1 Vp-p, 75-ohms unbalanced, sync negative Audio: 500 mVrms (100% modulation) Impedance: 47 kilohms		Design and specifications subject to change without notice.
	AUDIO OUTPUT (VARIABLE) (phono jacks) More than 408 mVrms at the maximum volume setting (variable) (100% modulation) Impedance: 10 kilohms		
Output			
Dimensions	Approx. 794 x 559 x 515 mm (w/h/d)		
Weight	Approx. 50 kg		



MICROFILM

**TRINITRON® COLOR TV**  
**SONY®**

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## WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.  
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

## ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE UTILISÉ LORS DE TOUT DÉPANNAGE.  
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDE À L'ALIMENTATION SECTEUR.

## ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDICÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

## SAFETY CHECK-OUT (US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).  
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

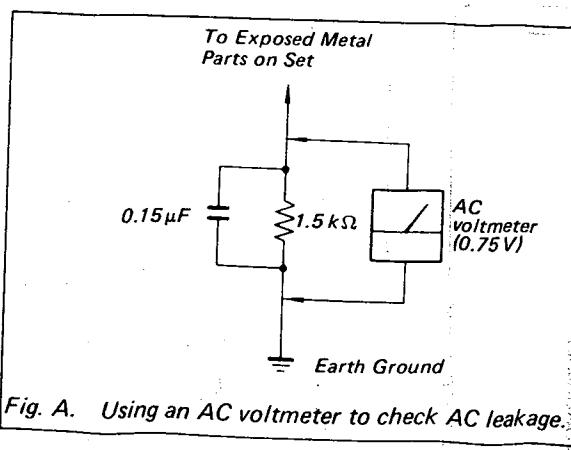


Fig. A. Using an AC voltmeter to check AC leakage.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

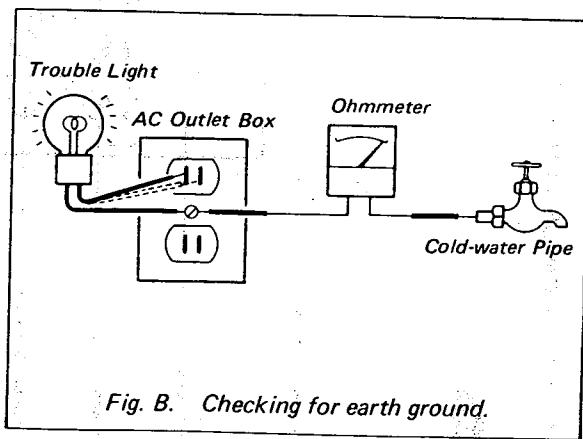
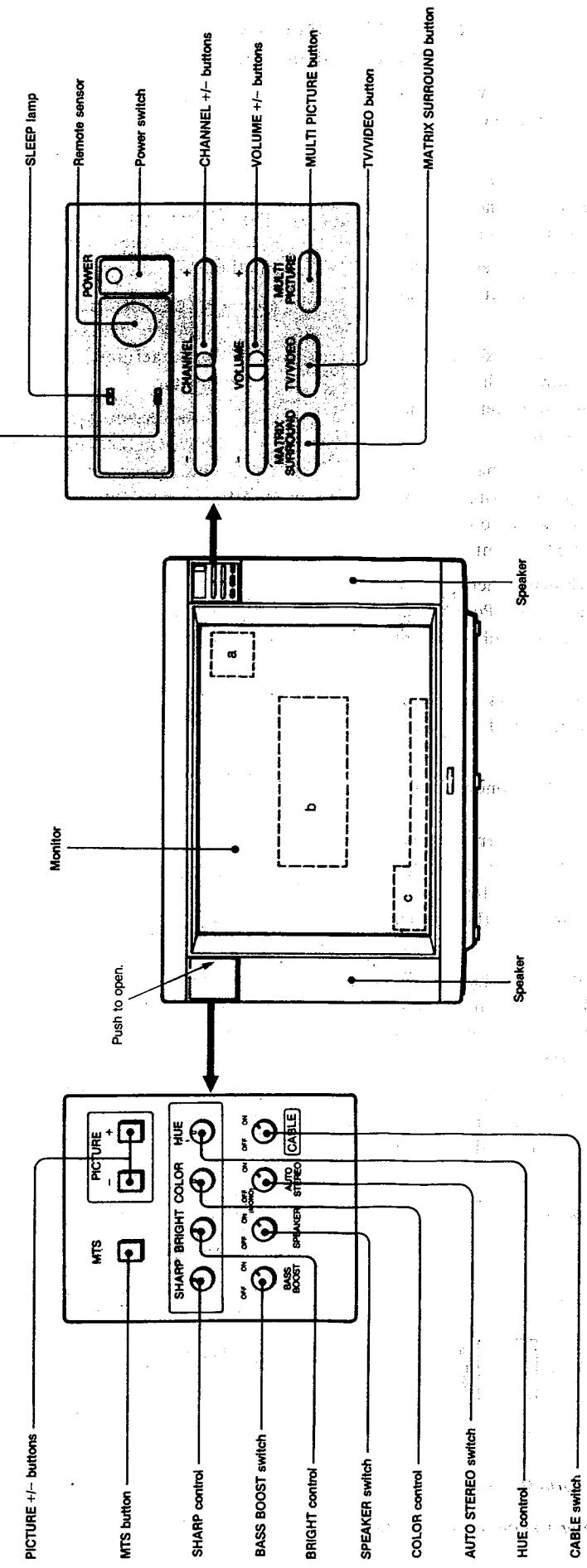


Fig. B. Checking for earth ground.

## SECTION 1 GENERAL

### 1-1. LOCATION OF CONTROLS

Front



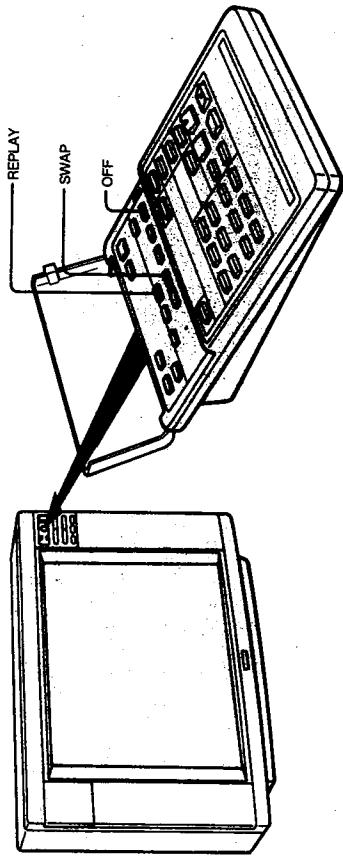
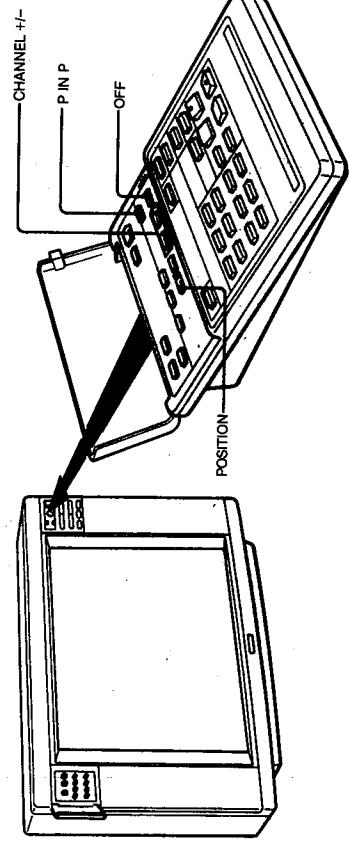
**On-screen displays**

- a) • Channel numbers
- MTS mode indication
- "MUTING", "SLEEP" or "VIDEO" mode indication
- b) • "AUTO PROGRAM" indication
- c) • Bar display for volume or picture adjustment
- Current time when the internal clock is set
- Display for surround mode indication



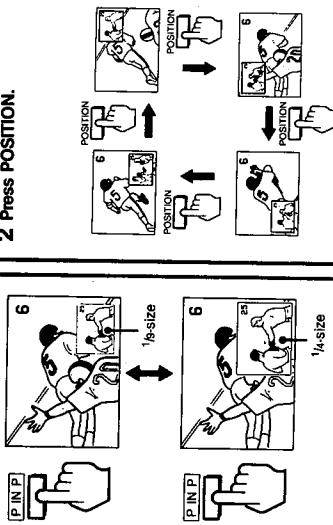


#### 1-4. ENJOYING THE PICTURE-IN-PICTURE FEATURE



Besides the main picture, another TV channel or a video source can be displayed simultaneously as a sub picture.

**To display a sub picture**  
1 Press P IN P.  
2 Press POSITION.

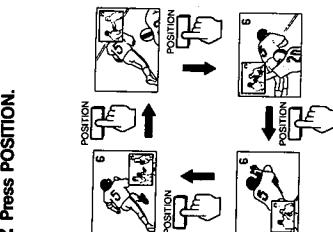


To scan the channels of a sub picture, press CHANNEL +/-.  
To make the sub picture disappear, press OFF.

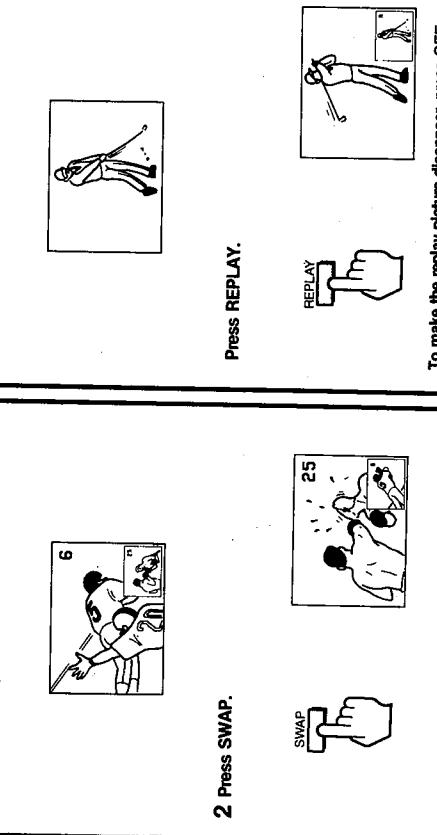
- The channels being received through the AUX terminal cannot be displayed as a sub picture except as a split picture. (See page 18.)
- The sound of the sub picture cannot be heard.

**To adjust a sub picture**  
Adjust the controls inside the panel of the TV. The PICTURE buttons and BRIGHT, COLOR and HUE controls operate on a main and a sub picture simultaneously. The SHARP control is not operable for a sub picture.

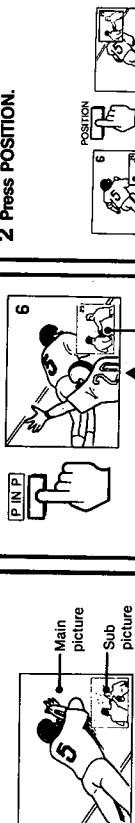
**To change the position of the sub picture**  
1 Display a sub picture.  
2 Press POSITION.



**To replay the main and the sub picture earlier**  
1 Display a sub picture.  
2 Press SWAP.



To make the replay picture disappear, press OFF.

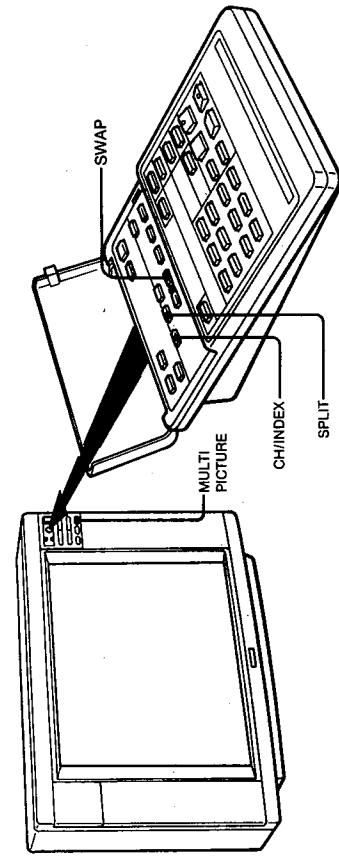


Press REPLAY.

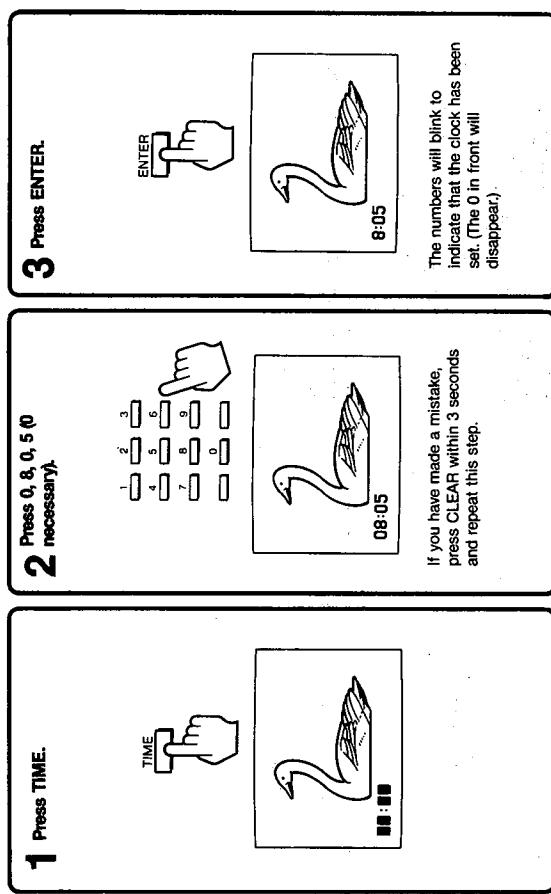


To make the replay picture disappear, press OFF.

## 1-5. SETTING THE CLOCK

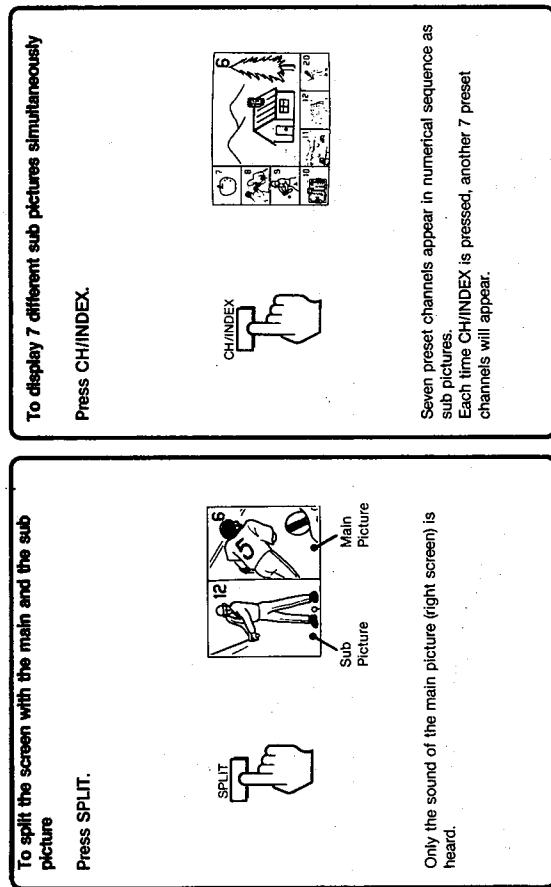
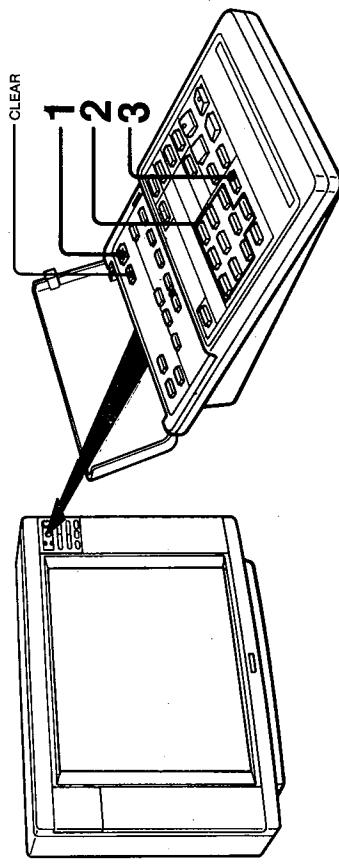


Example: To set the clock to 8:05 p.m.



- The internal clock of this TV is 12-hour cycle. If the 24-hour cycle number is displayed, it will be cleared when ENTER is pressed.
- Clock setting will be erased from the unit's memory if the unit is unplugged, or, if a power failure occurs.

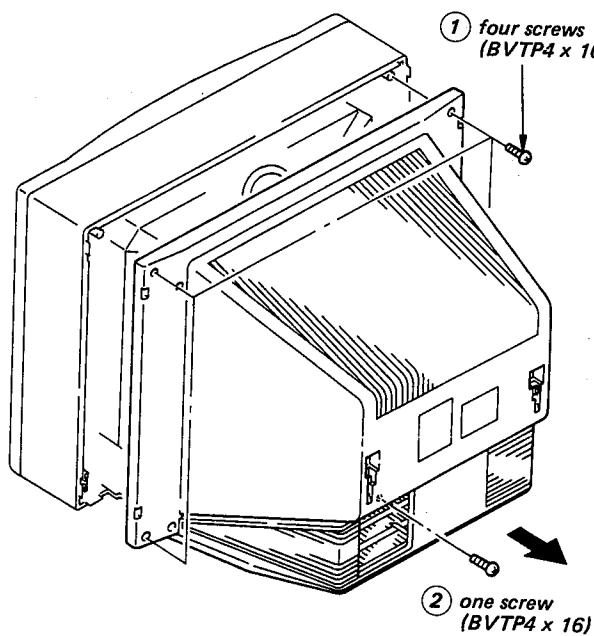
To make the clock indication disappear, press TIME. To reset the clock, make the clock indication disappear and then make it appear again. Press CLEAR within 3 seconds and follow the steps above from 2.



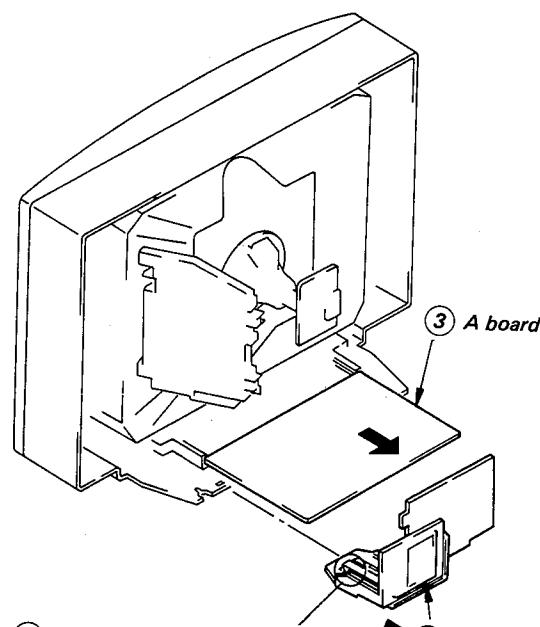
## SECTION 2

### DISASSEMBLY

#### 2-1. REAR COVER REMOVAL

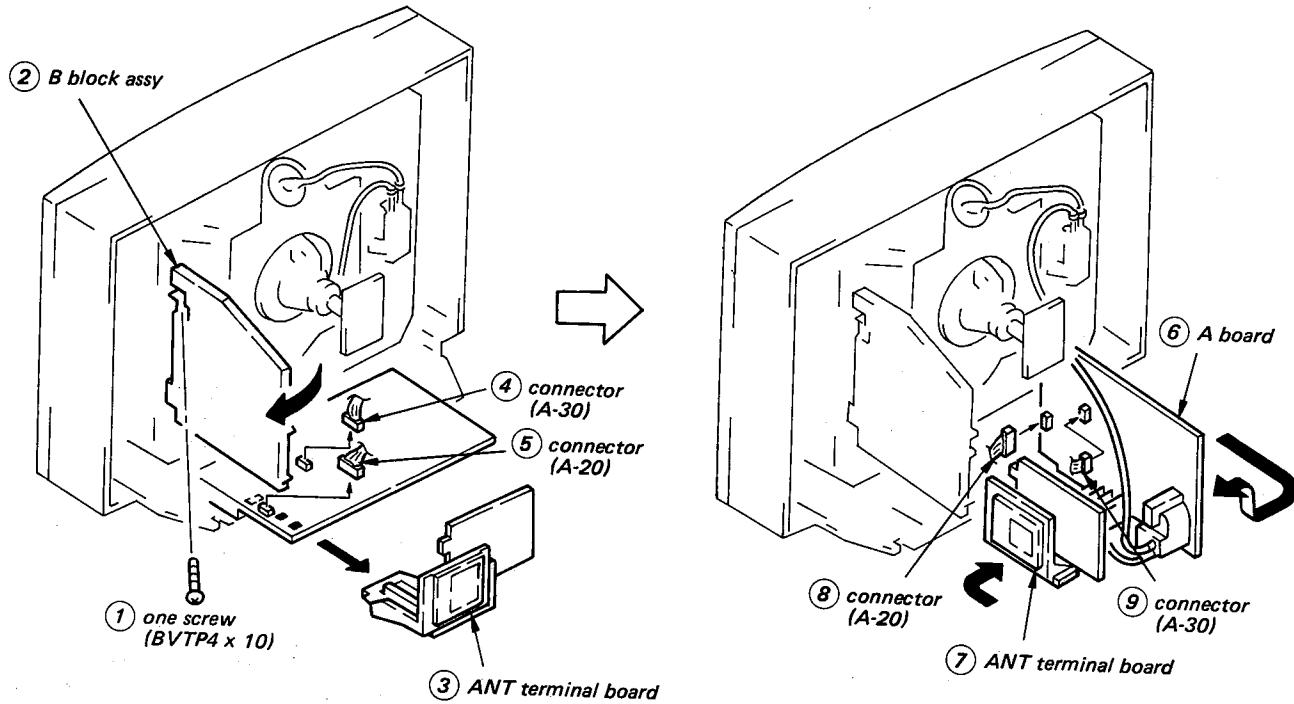


#### 2-2. A BOARD REMOVAL

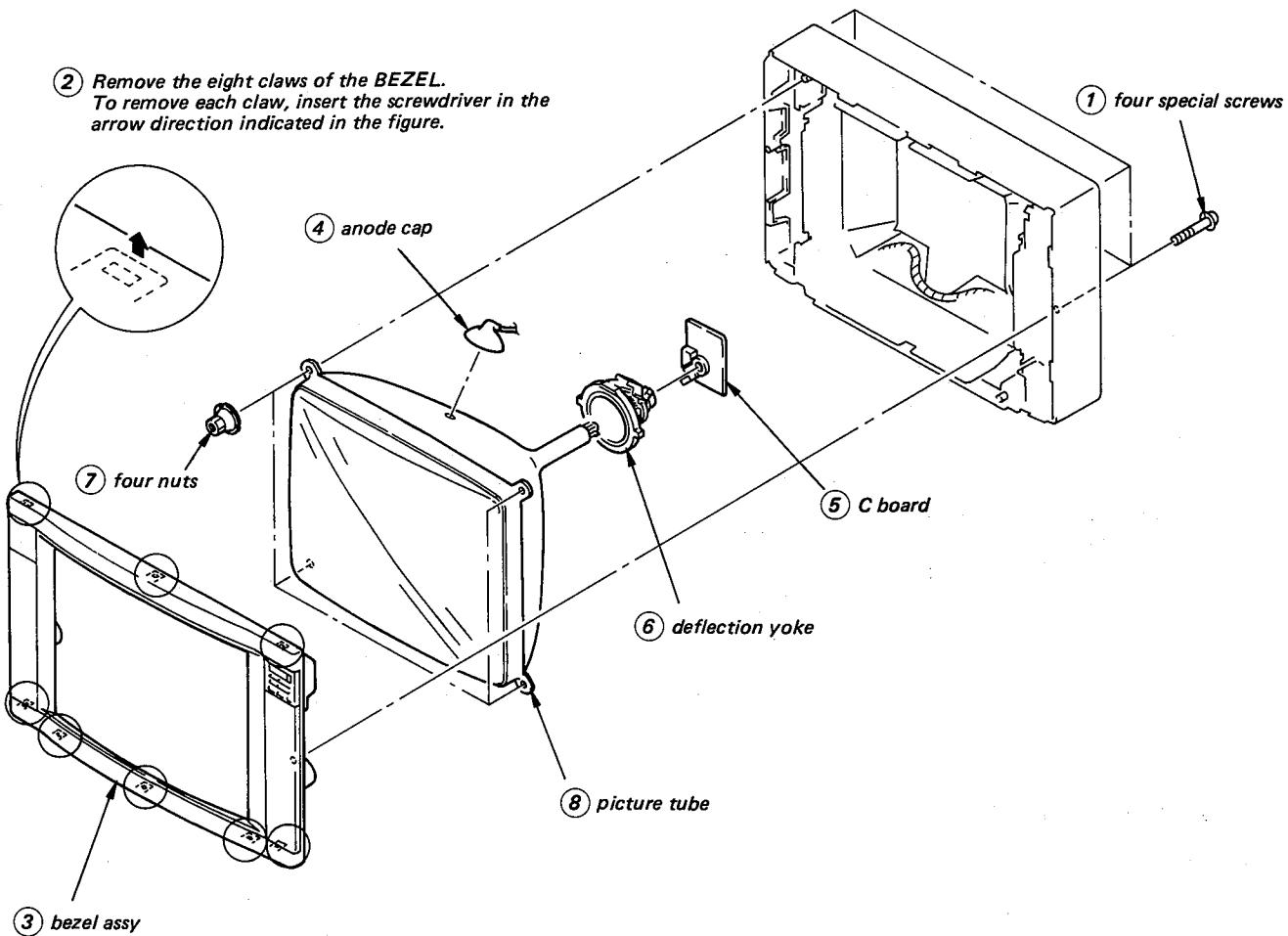


① Remove the claw at the bottom of the ANT terminal board in the arrow direction indicated in the arrow.

#### 2-3. SERVICE POSITION



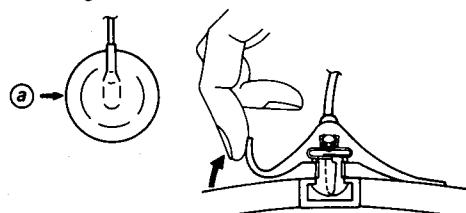
## 2-4. PICTURE TUBE REMOVAL



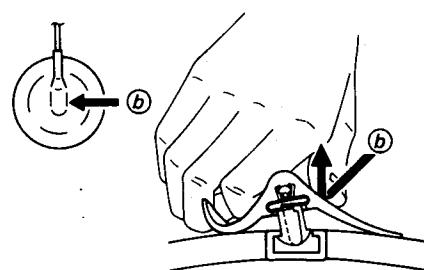
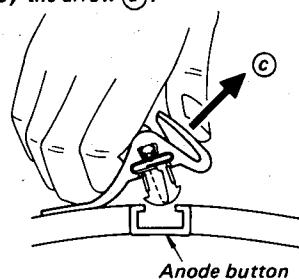
## 2-5. REMOVAL OF ANODE CAP

### ANODE CAP REMOVAL

#### • Removing Procedures



① Turn up one side of the rubber cap in the direction indicated by the arrow (a).



② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b).

③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

PICTURE control ..... RESET

BRIGHTNESS control ..... center

Perform the adjustments in order as follows:

1. Beam Landing

2. Convergence

3. Focus

4. White Balance

**Note:** Test Equipment Required.

- Color-bar/Pattern Generator
- Degausser
- Oscilloscope

#### 3.1. BEAM LANDING

##### Preparation:

- Feed in the white pattern.
- Before starting, degauss the entire screen.

- Turn on set power supply and receive an all-white signal.
- Evenly degauss the entire screen.
- Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Figure 3-1.
- Set BKG VR **R** to maximum and set **B** and **G** to minimum.
- Move the deflection yoke back, and adjust the purity control so that **R** is in the center and **G** and **B** are at the sides, evenly. (Figure 3-2.)
- Move the deflection yoke forward so that the entire screen is red.
- If the deflection yoke is pushed all the way to the CRT then moved slightly back, landing adjustment is easier.
- Substitute **G**, then **B** for **R** in step 4 and check landing.
- Rotate **R**, **G** and **B** once each and check landing.
- When landing is not right, adjust the purity control and use magnets as shown in Figure 3-3; then repeat steps 7 and 8.
- When a magnet is used, be sure to perform step 2, and tighten deflection yoke mounting screw loosely.

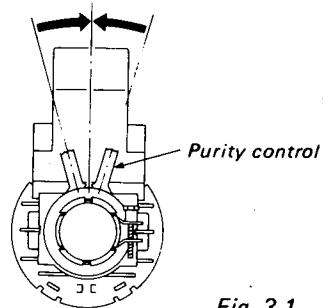


Fig. 3-1.

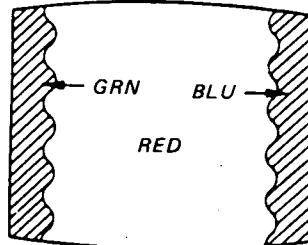


Fig. 3-2.

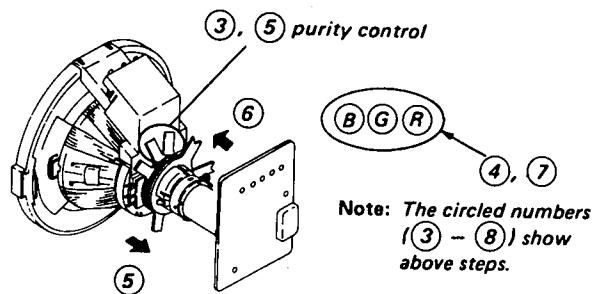
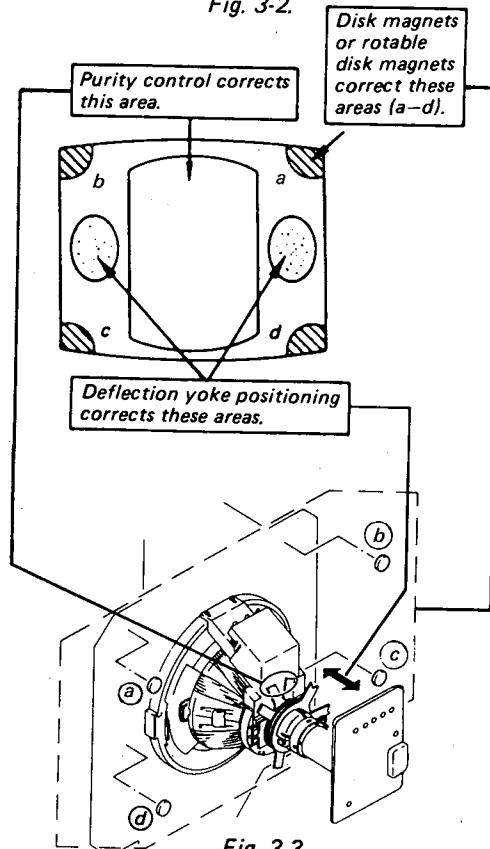


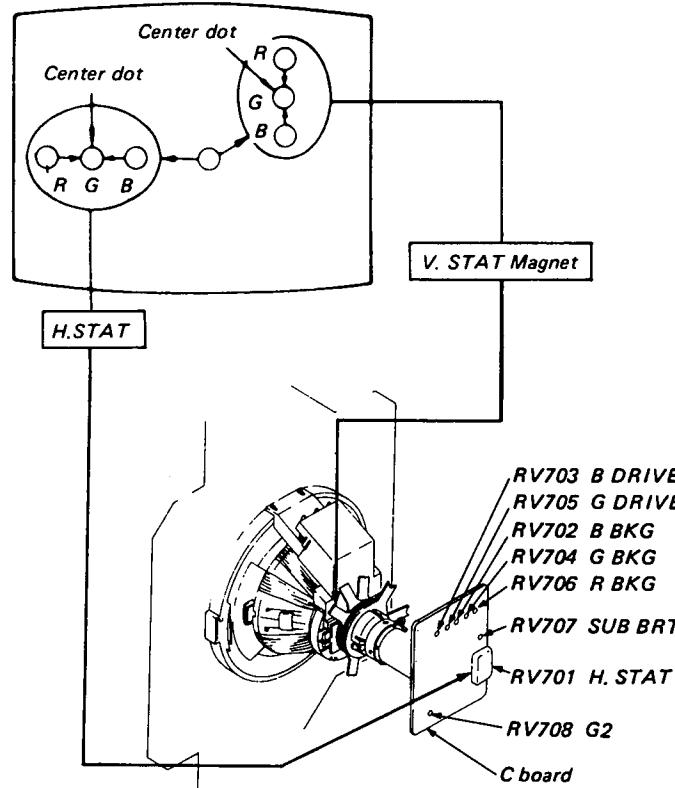
Fig. 2-2

### 3-2. CONVERGENCE

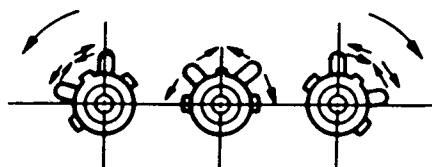
#### Preparation:

- Before starting, perform FOCUS, H. SIZE, V. SIZE and V. LIN adjustments.
- Set BRIGHTNESS control to fully counterclockwise.
- Feed in the dot pattern.

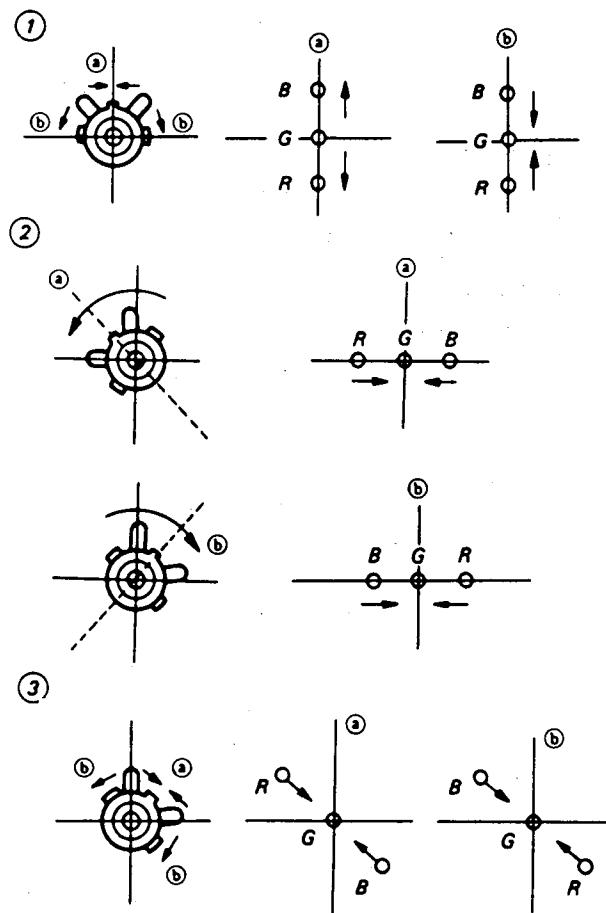
#### (1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen (Horizontal movement)
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen (Vertical movement)
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



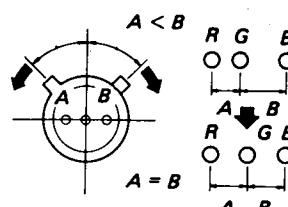
4. When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.



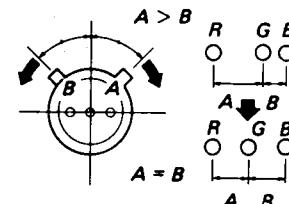
#### • HMC and VMC correction for Hexapole Magnet.

1. HMC (Horizontal, Mis, convergence) correction and motion of the Electron Beam with the Hexapole Magnet.

#### HMC correction (A)

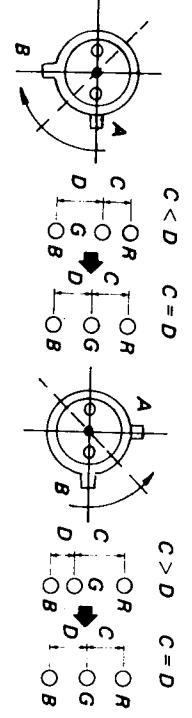


#### HMC correction (B)

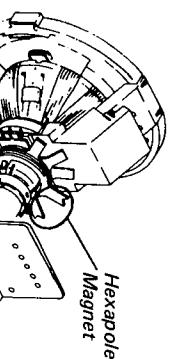


2. VMC (Vertical Mis. convergence) correction and motion of the Electron Beam with the Hexapole Magnet.

VMC correction (A)



VMC correction (B)

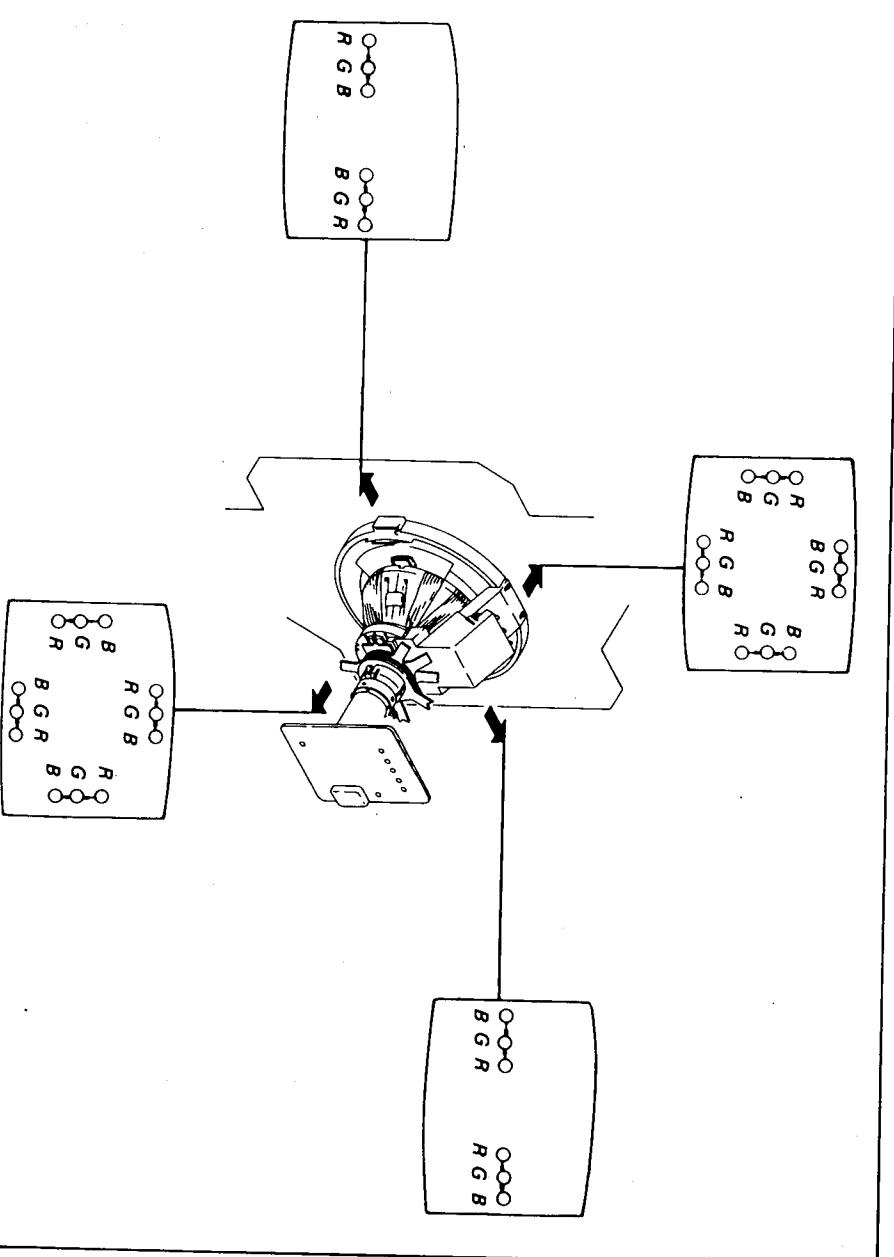


(2) Dynamic Convergence Adjustment

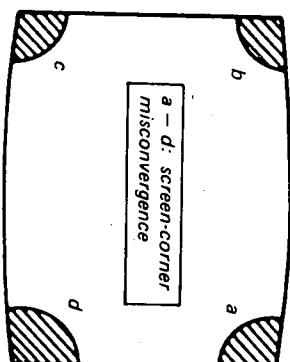
Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown in Fig. 3-4.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

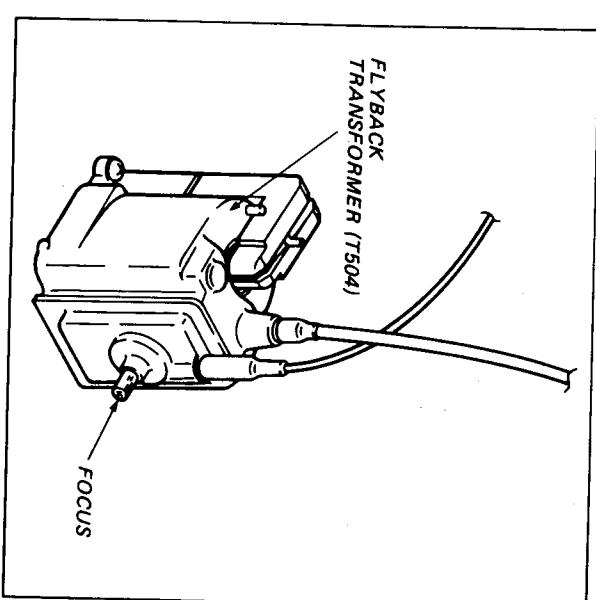


(3) Screen-corner Convergence



3.3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.



3.4. WHITE BALANCE

- Input dot signal from pattern generator.
- PICTURE button ..... 80%
- BRIGHTNESS control ..... click position

[SCREEN (G2)]

1. Adjust BKG VRs (RV702, RV704, and RV706) so that voltages on the red, green and blue cathodes are 180 V dc with an oscilloscope as shown in Fig. 3-5.

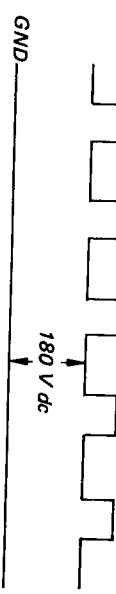
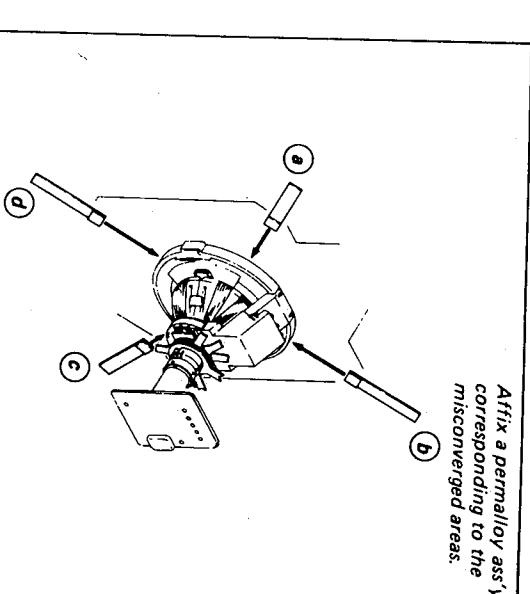


Fig. 3-5.

2. Observe the screen and adjust RV708 (SCREEN) to obtain the faintly visible background of dot signal. Note the color that first becomes visible by turning SCREEN VR.

Do not turn a BKG control for this color.

Affix a permalloy assembly corresponding to the misconverged areas.



[WHITE BALANCE]

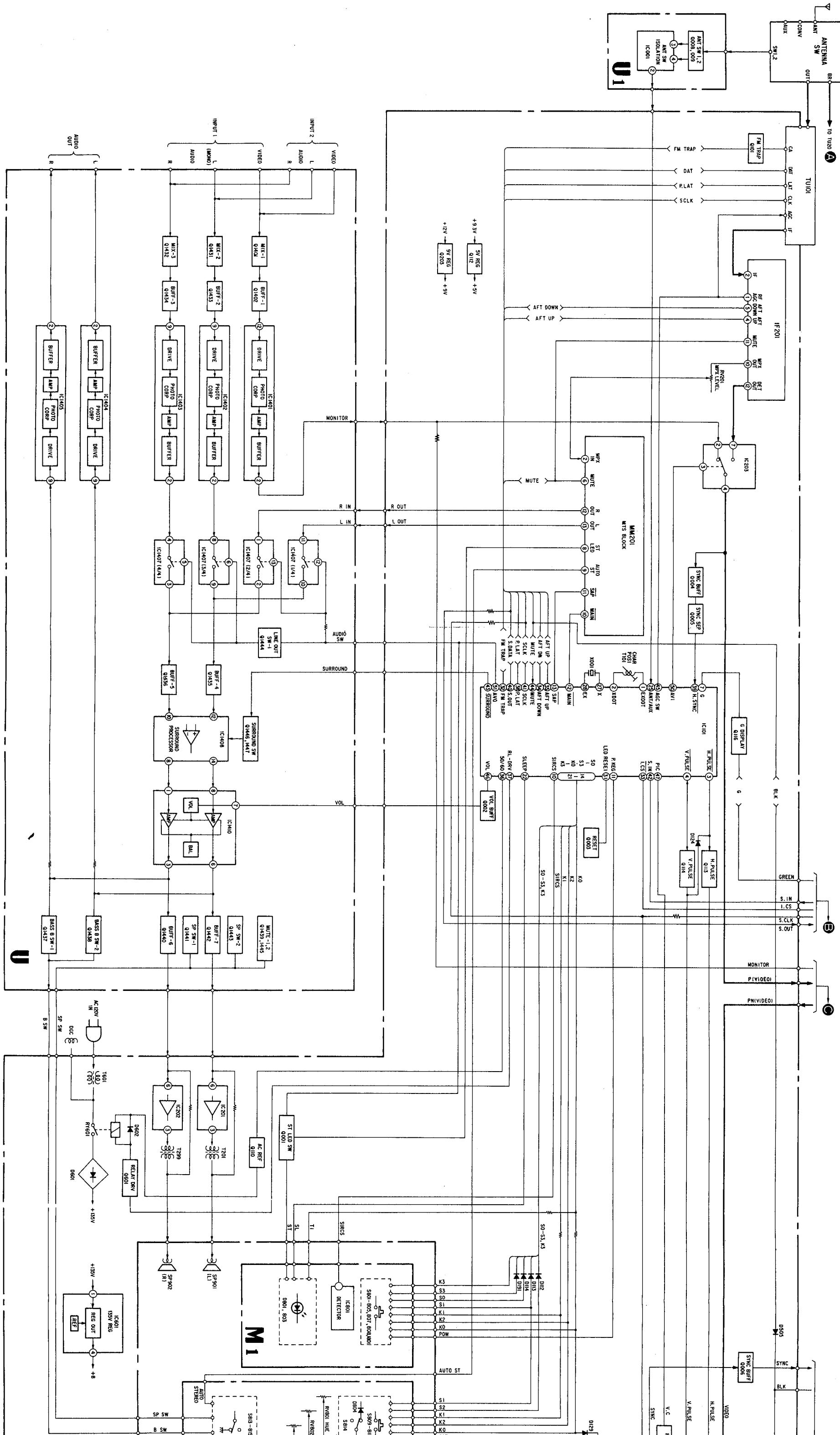
1. Input entirely white signal from pattern generator.
2. Set the PICTURE button to obtain the faintly visible raster on the screen.
3. Observe the screen and adjust the other two BKG VRs for best white balance.
4. Set the PICTURE button at maximum.
5. Observe the screen and adjust the DRIVE VRs (RV703, RV705) for best white balance.
6. Repeat steps 2 through 5 several times.

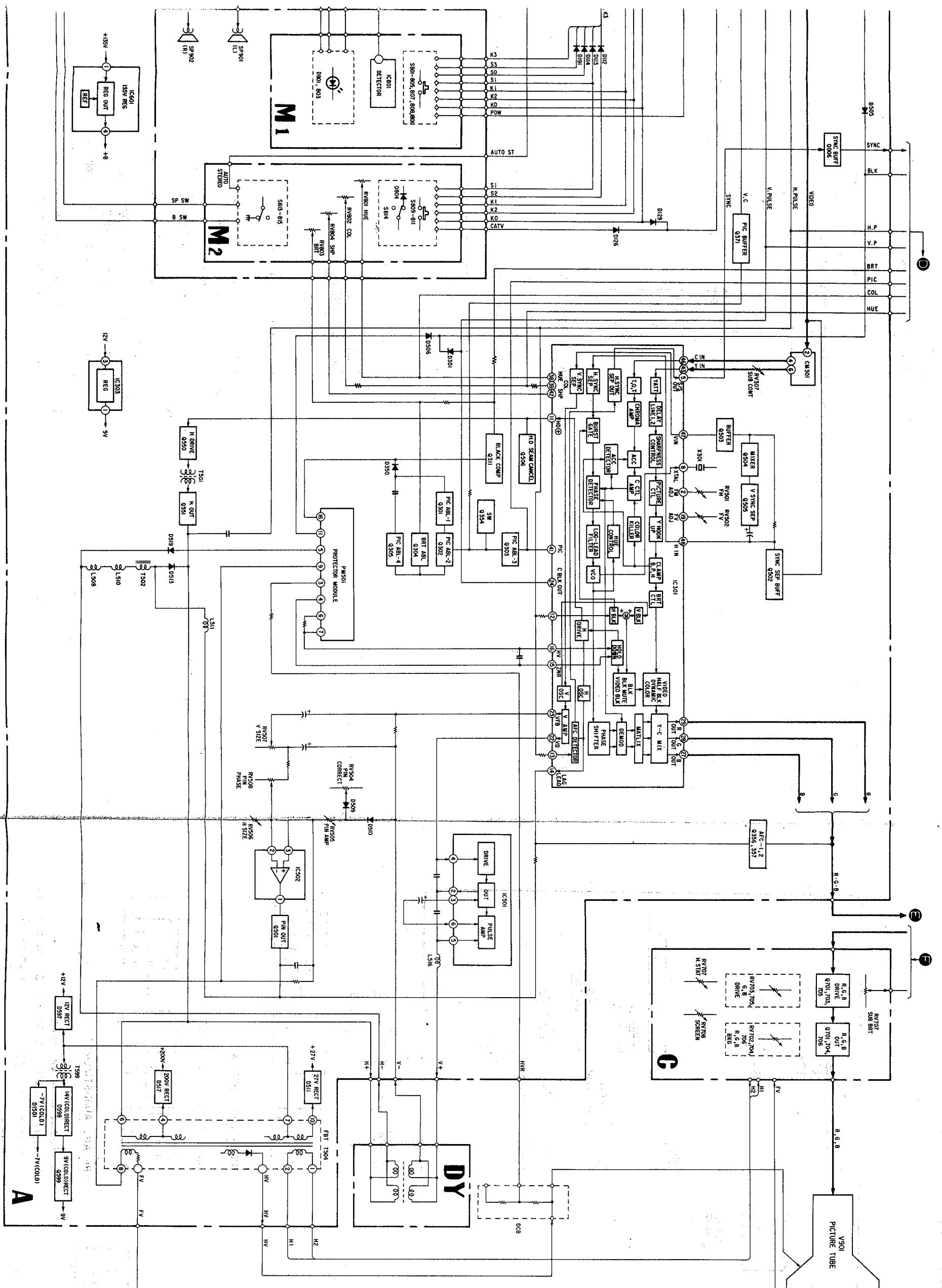
Fig. 3-4.

**KV-27TX20 KV-27TX20**  
RM-754 RM-754

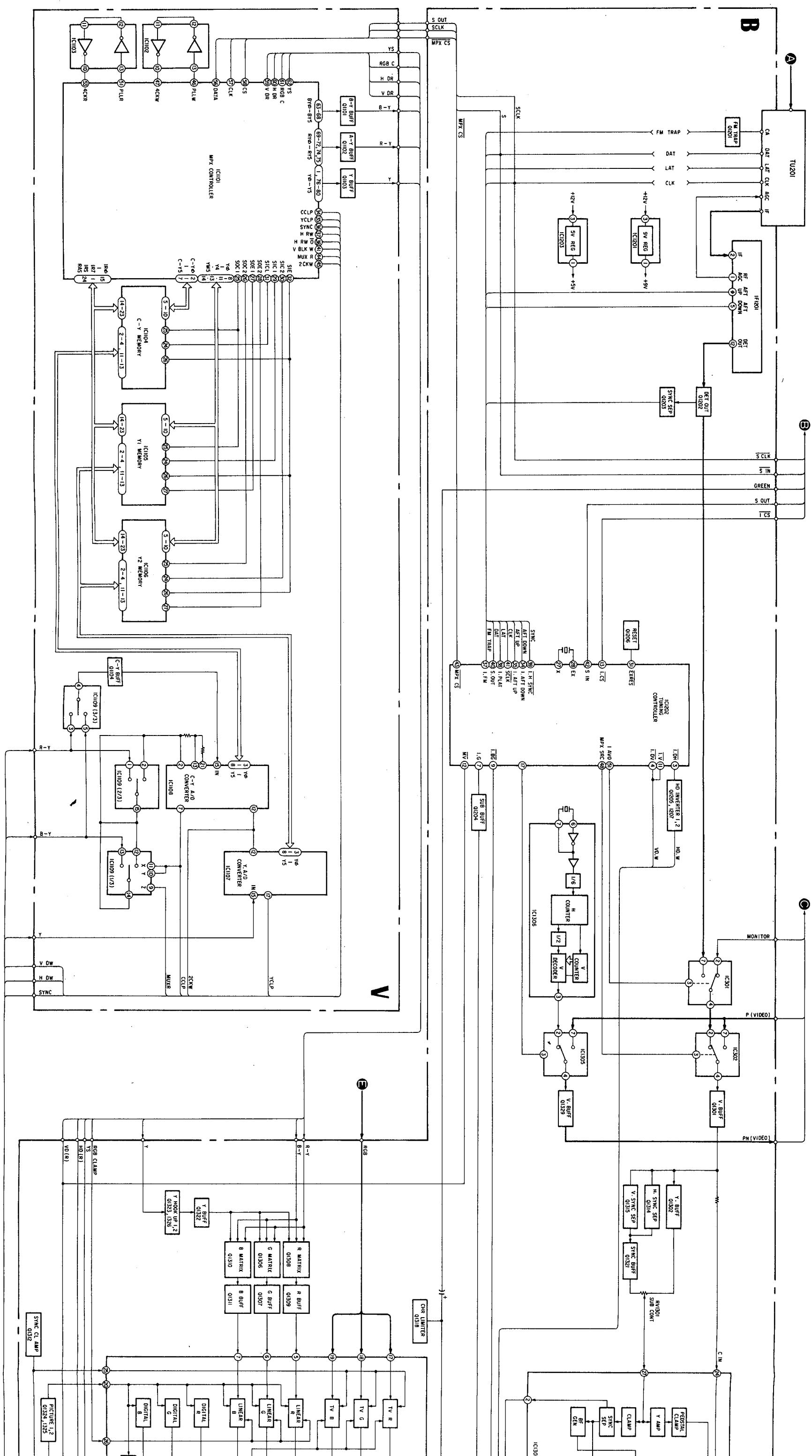
**SECTION 6**  
**DIAGRAMS**

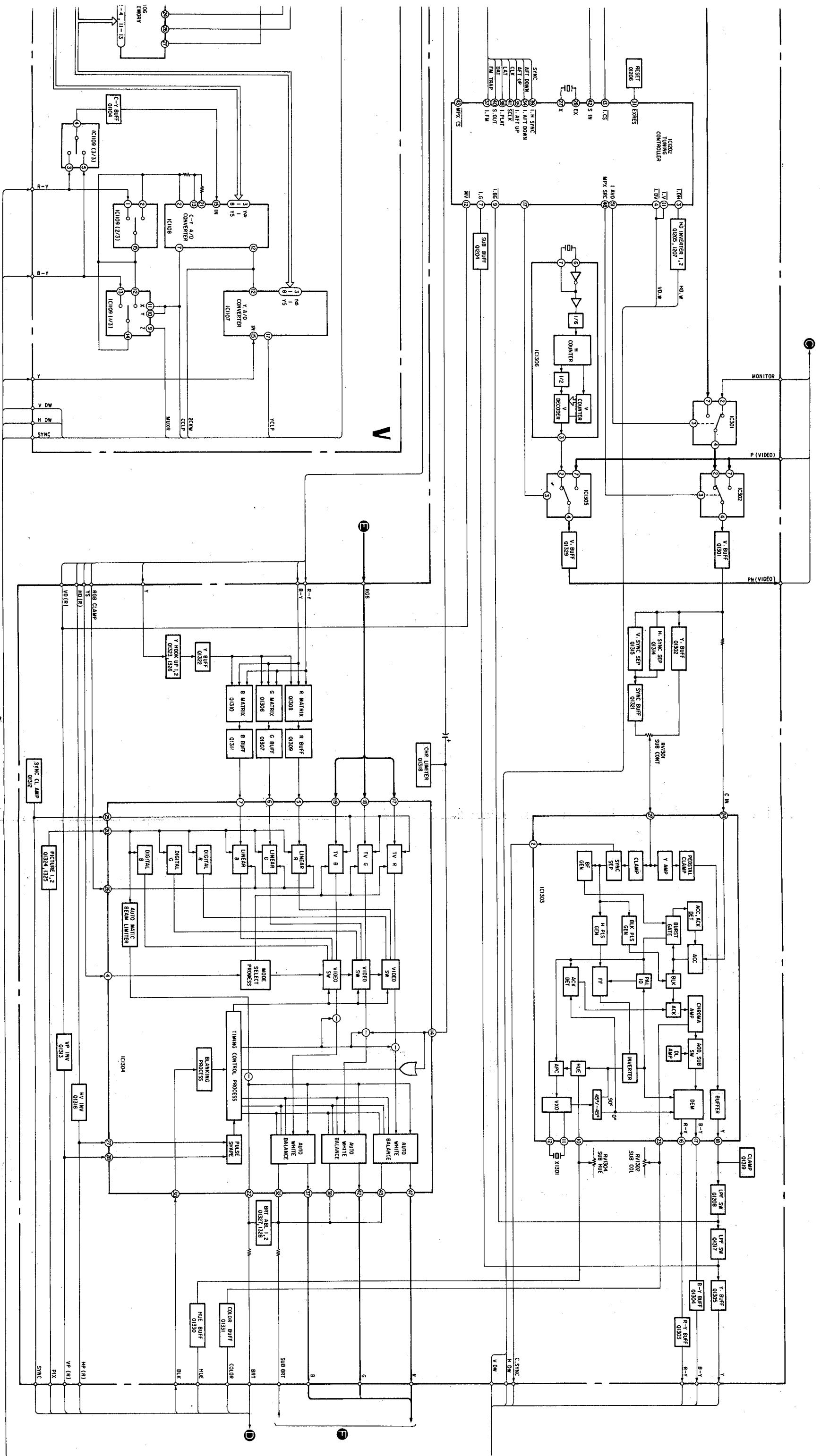
**6-1. BLOCK DIAGRAM**





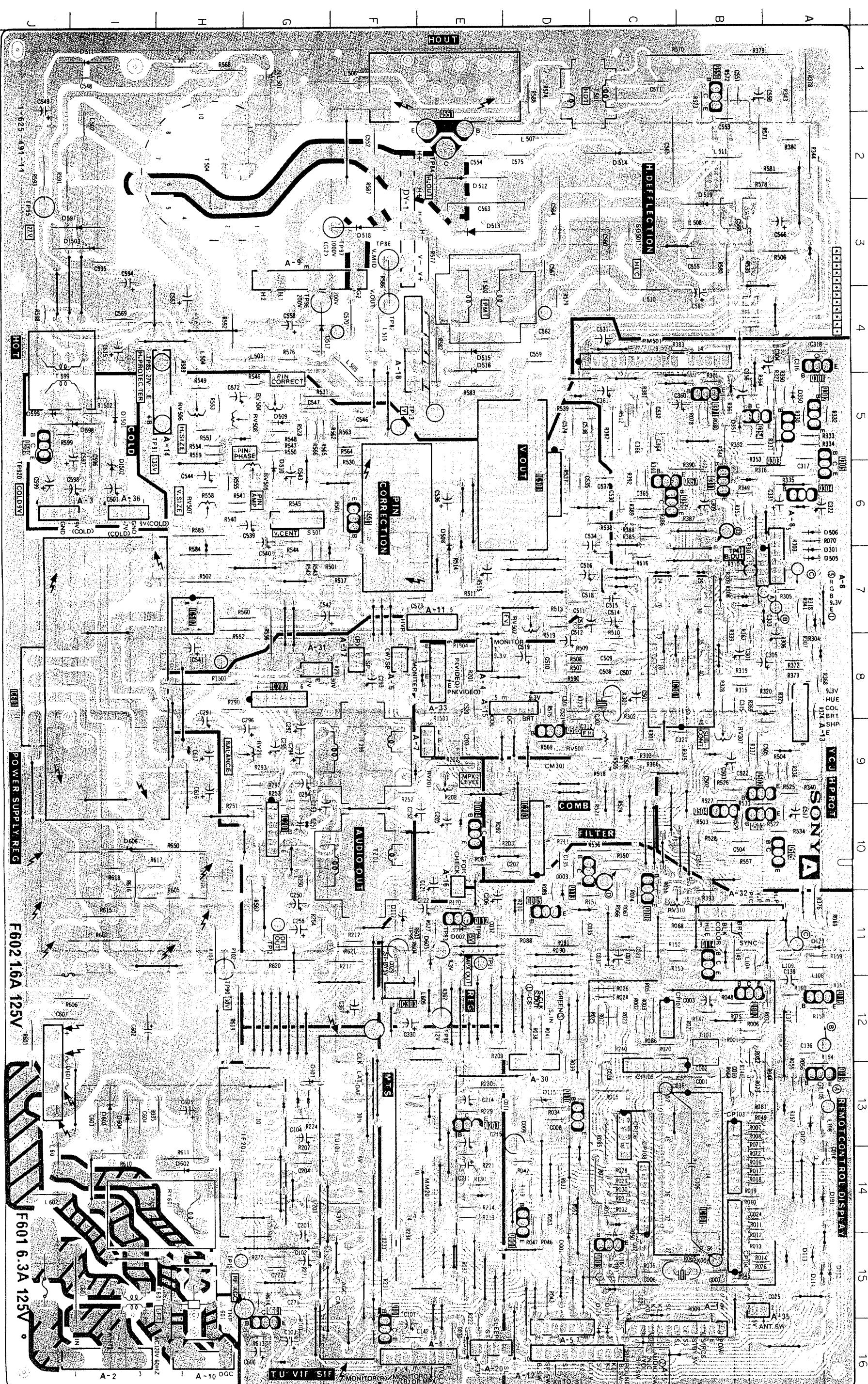
**KV-27TX20** **KV-27TX20**  
RM-754 RM-754





## 6.2. PRINTED WIRING BOARDS - Conductor Side -

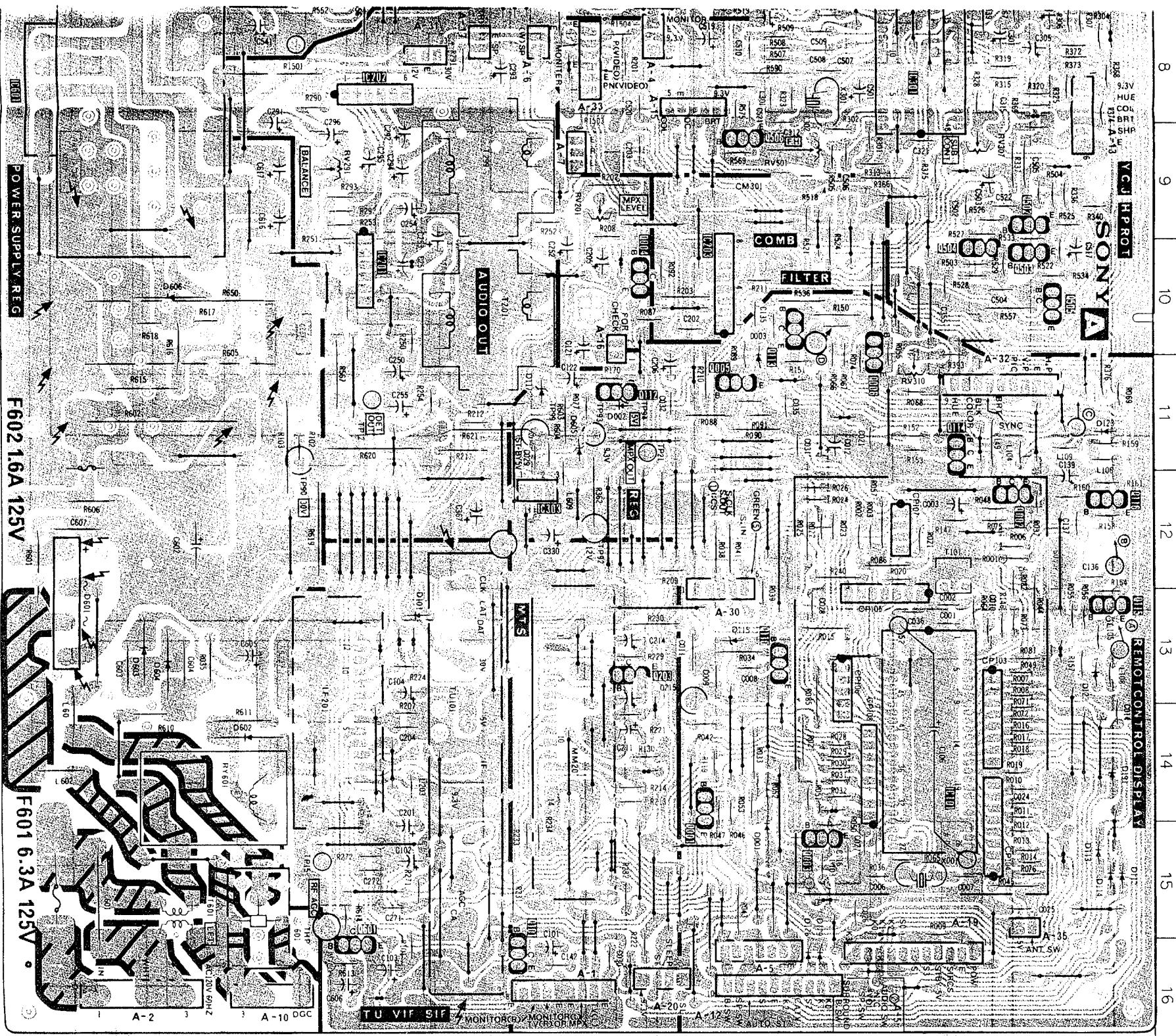
- A Board -



**A** PLL CONTROLLER DISPLAY, MEMORY, V OUT, PIN MOD

**B** AF AMP, VIDEO SW, Y/C JUNGLE,

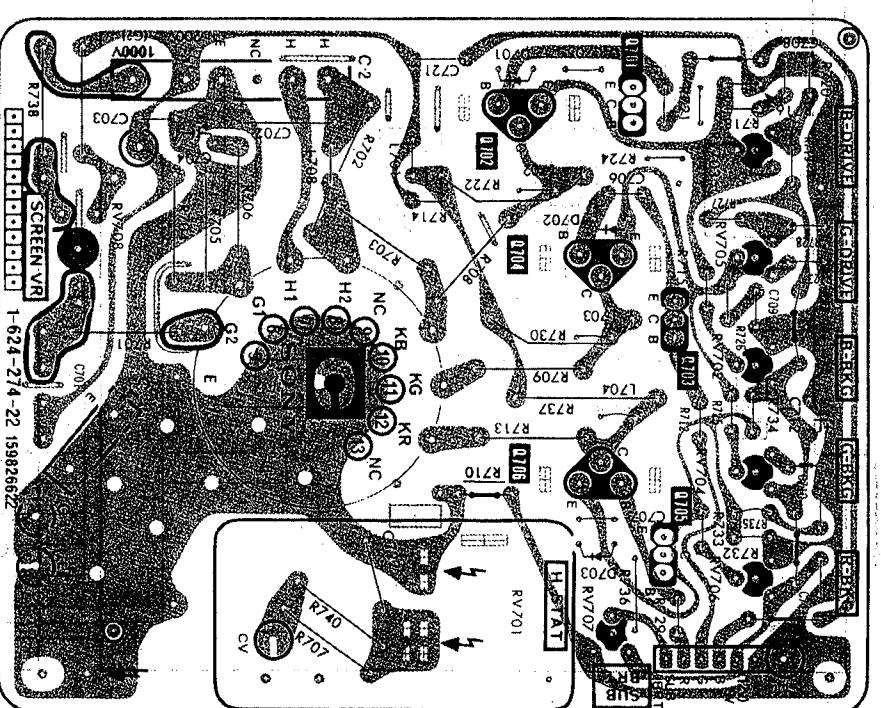
**C** IR-G-B OUT1



**A** PLL CONTROLLER DISPLAY, MEM  
AF AMP, VIDEO SW, Y/C JUNGLE,  
V OUT, PIN MOD

C  
[R·G·B OUT]

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



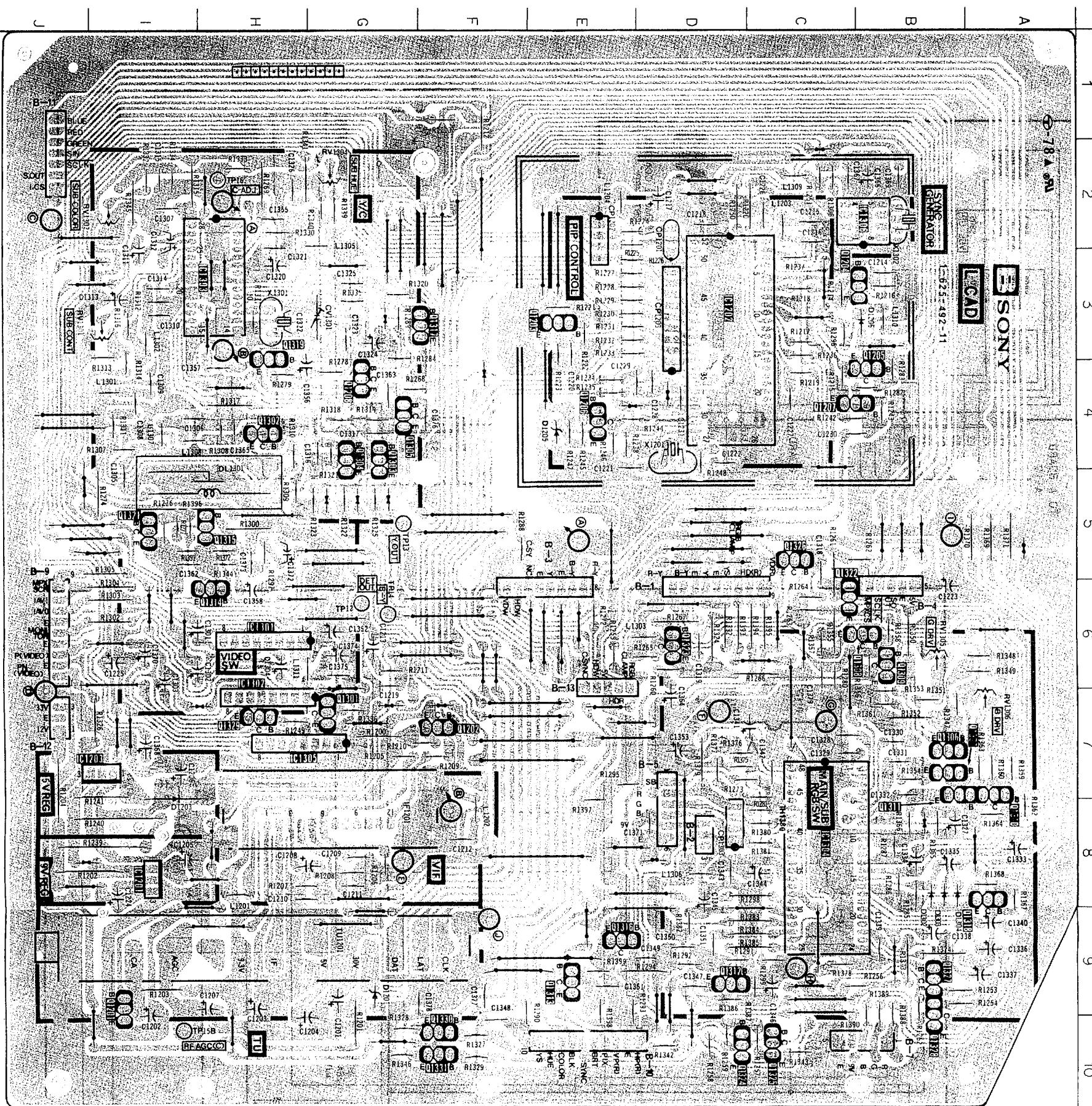
# KV-27TX20 KV-27TX20

RM-754 RM-754

**B**

R.G.B INTERFACE, Y/C DECODER  
TUNING CONTROLLER, VIDEO SW  
C SYNC, 5V REG, 9.3V REG

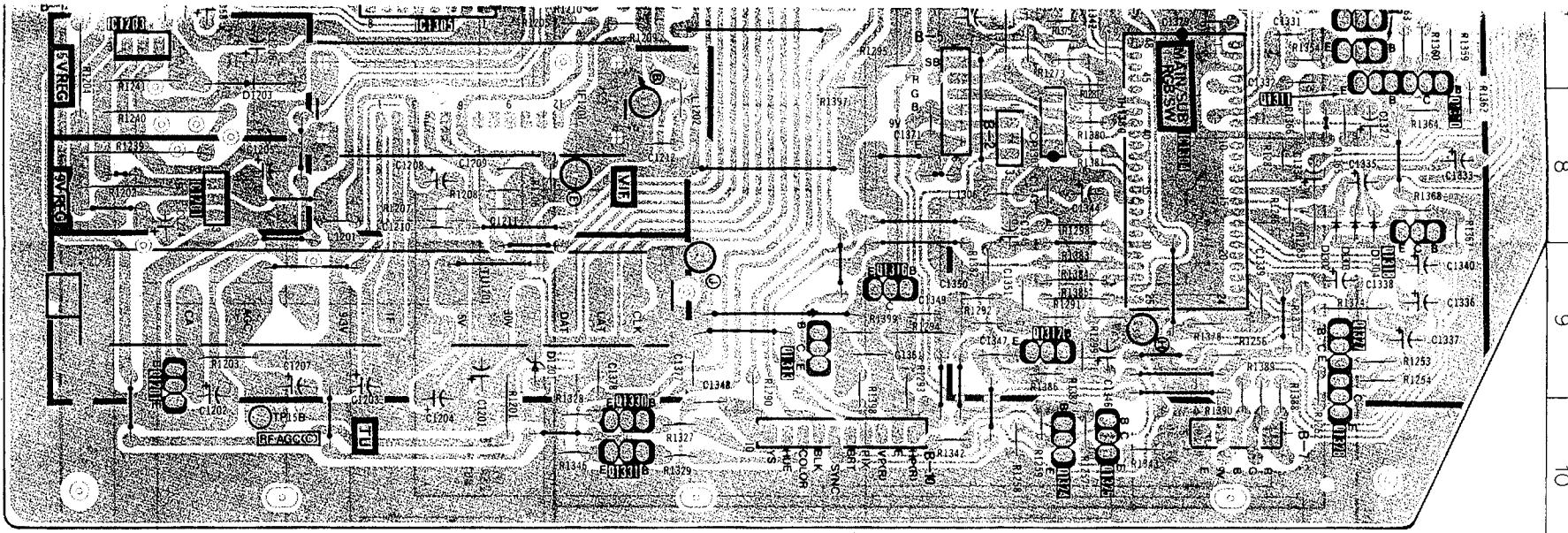
- B Board - -- Conductor Side --



C	D	ODE
IC1201	I-8	D1201
IC1202	D-3	D1203
IC1203	I-7	D1205
IC1301	H-6	E-4
IC1302	H-7	D1206
IC1303	H-3	B-3
IC1304	C-8	D1303
IC1305	H-7	B-8
IC1306	B-2	
TRANSISTOR	RESISTOR	
Q1201	I-3	RV1301
Q1202	I-2	RV1302
Q1203	B-6	RV1305
Q1204	B-3	RV1306
Q1205	B-4	
Q1206	E-4	
Q1207	B-4	
Q1208	G-4	
Q1301	G-7	
Q1302	H-4	
Q1303	G-4	
Q1304	G-4	
Q1305	G-4	
Q1306	B-7	
Q1307	B-7	
Q1308	B-6	
Q1309	B-6	
Q1310	A-7	
Q1311	B-7	
Q1312	D-9	
Q1313	E-9	
Q1314	H-6	
Q1315	H-5	
Q1316	E-9	
Q1317	F-3	
Q1318	A-8	
Q1319	H-3	
Q1320	I-5	
Q1321	C-6	
Q1322	C-10	
Q1323	D-6	
Q1324	D-01	
Q1325	C-5	
Q1326	C-5	
Q1327	B-9	
Q1328	B-9	
Q1329	H-7	
Q1330	F-10	
Q1331	F-10	

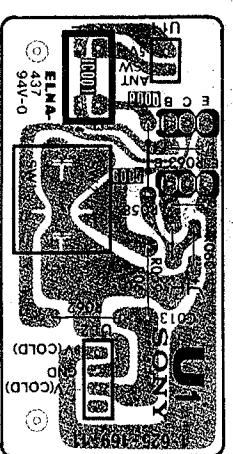
- V Board



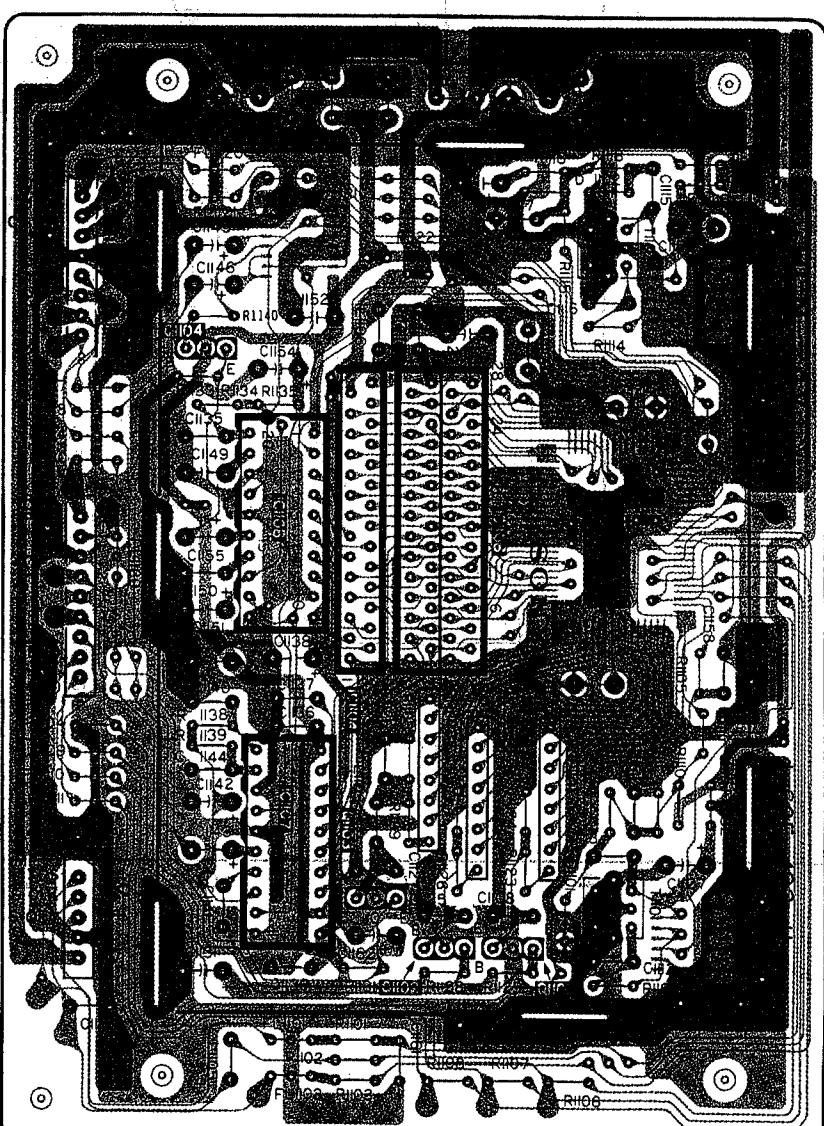


IC	DIODE
IC1201	I-8
IC1202	D-3
IC1203	I-7
IC1301	H-6
IC1302	H-7
IC1303	H-3
IC1304	C-8
IC1305	H-7
IC1306	B-2
TRANSISTOR	VARIABLE RESISTOR
Q1201	RV1301
Q1202	RV1302
Q1203	RV1304
Q1204	RV1305
Q1205	RV1306
Q1206	A-7
Q1207	B-4
Q1208	G-4
Q1301	G-7
Q1302	H-4
Q1303	G-4
Q1304	G-4
Q1305	G-4
Q1306	B-7
Q1307	B-7
Q1308	B-6
Q1309	B-6
Q1310	A-7
Q1311	B-7
Q1312	D-9
Q1313	E-9
Q1314	H-6
Q1315	H-5
Q1316	E-9
Q1317	F-3
Q1318	A-8
Q1319	H-3
Q1321	I-5
Q1322	C-6
Q1323	D-6
Q1324	D-01
Q1325	C-10
Q1326	C-5
Q1327	B-9
Q1328	B-9
Q1329	H-7
Q1330	F-10
Q1331	F-10

— ✓ Board —

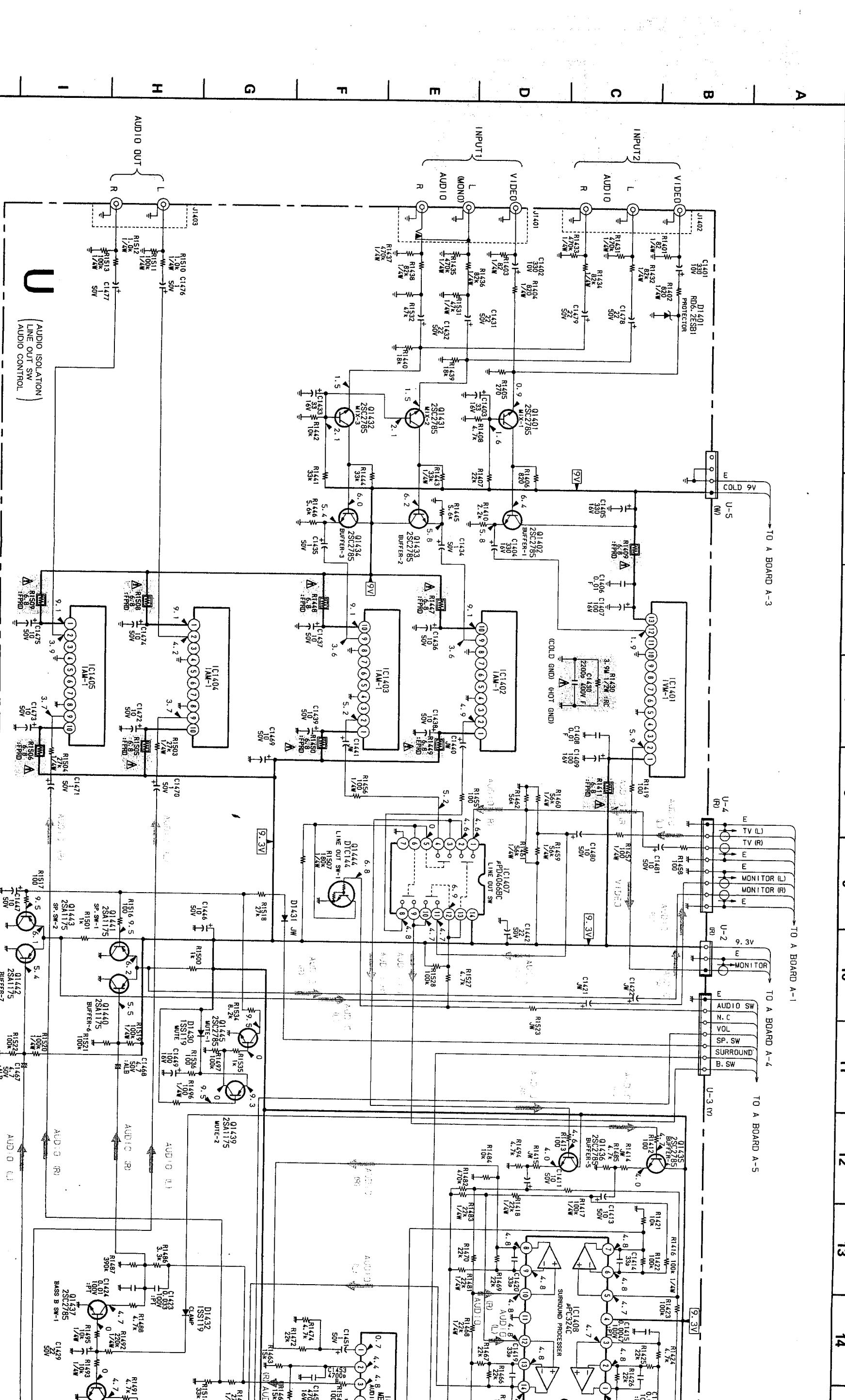


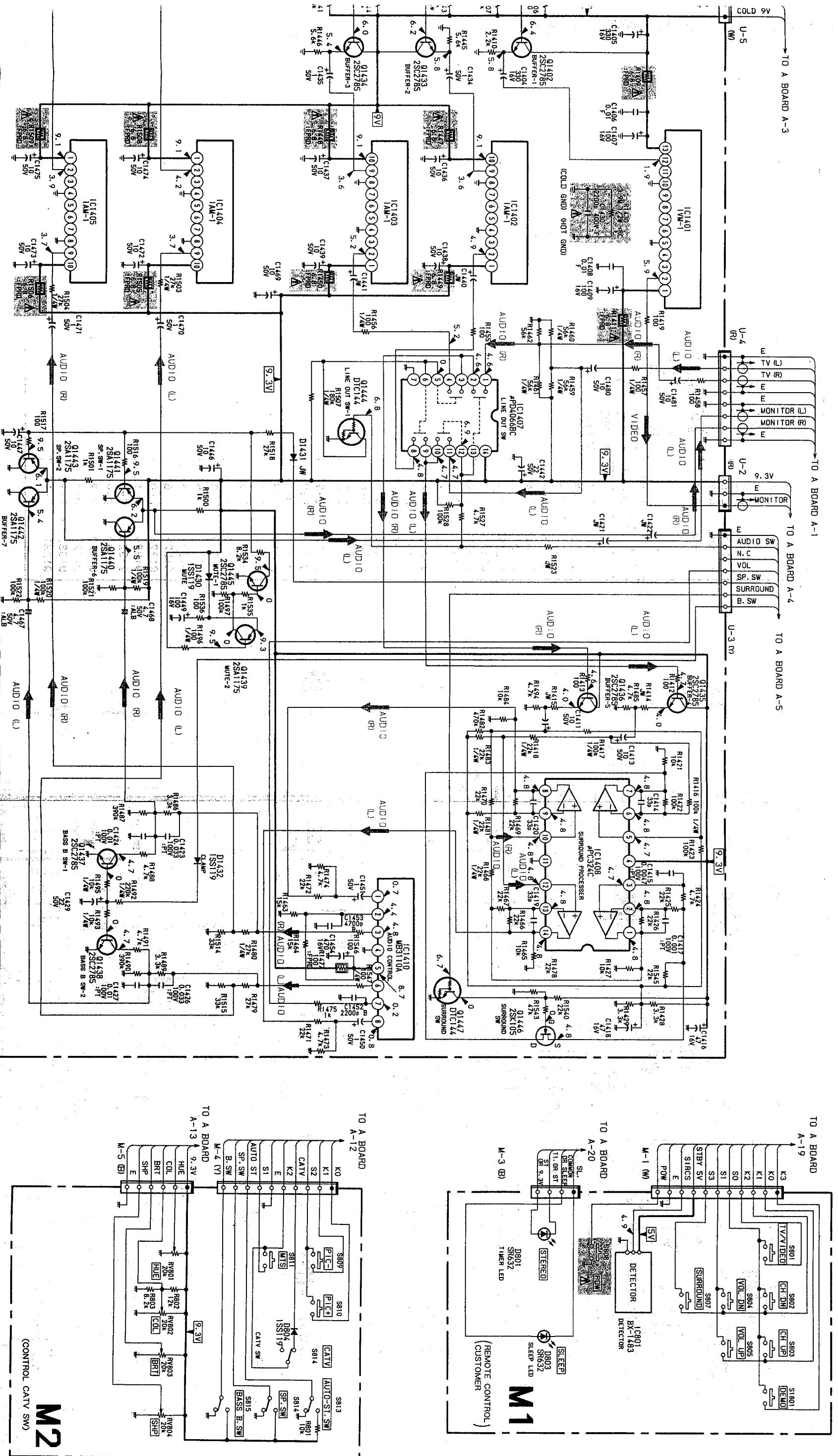
— U1:Board —



**V** MPX CONTROLLER, MEMORY,  
A/D CONVERTER, C-Y MULTIPLEX,  
WRT CLOCK OSC, READ CLOCK OSC

1







# KV-27TX20 KV-27TX20

RM-754 RM-754

## SECTION 7

### EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a callout number in the remark column.

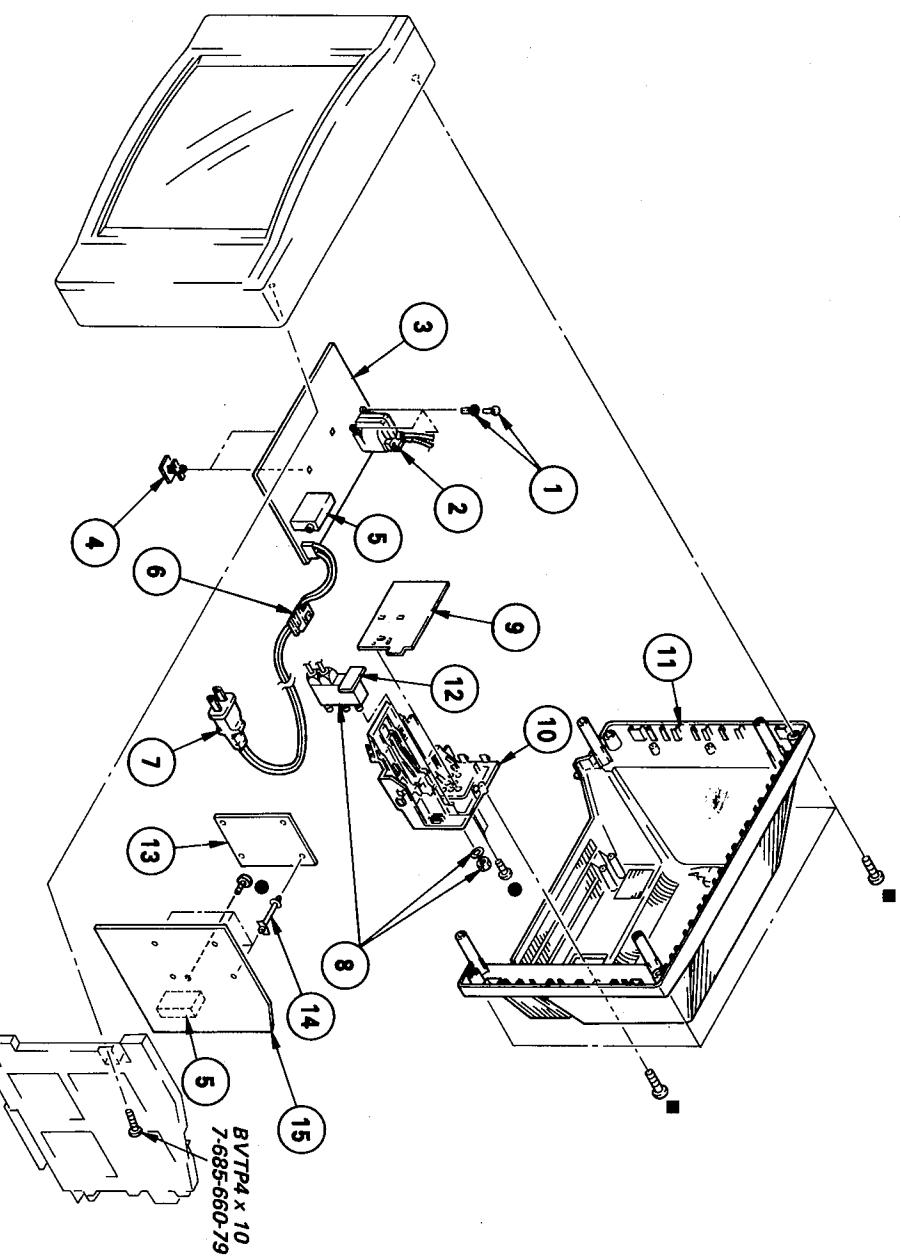
Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

#### 7.1. REAR COVER

- : BVTP3 x 12 7-685-648-79
- : BVTP4 x 16 7-685-663-79



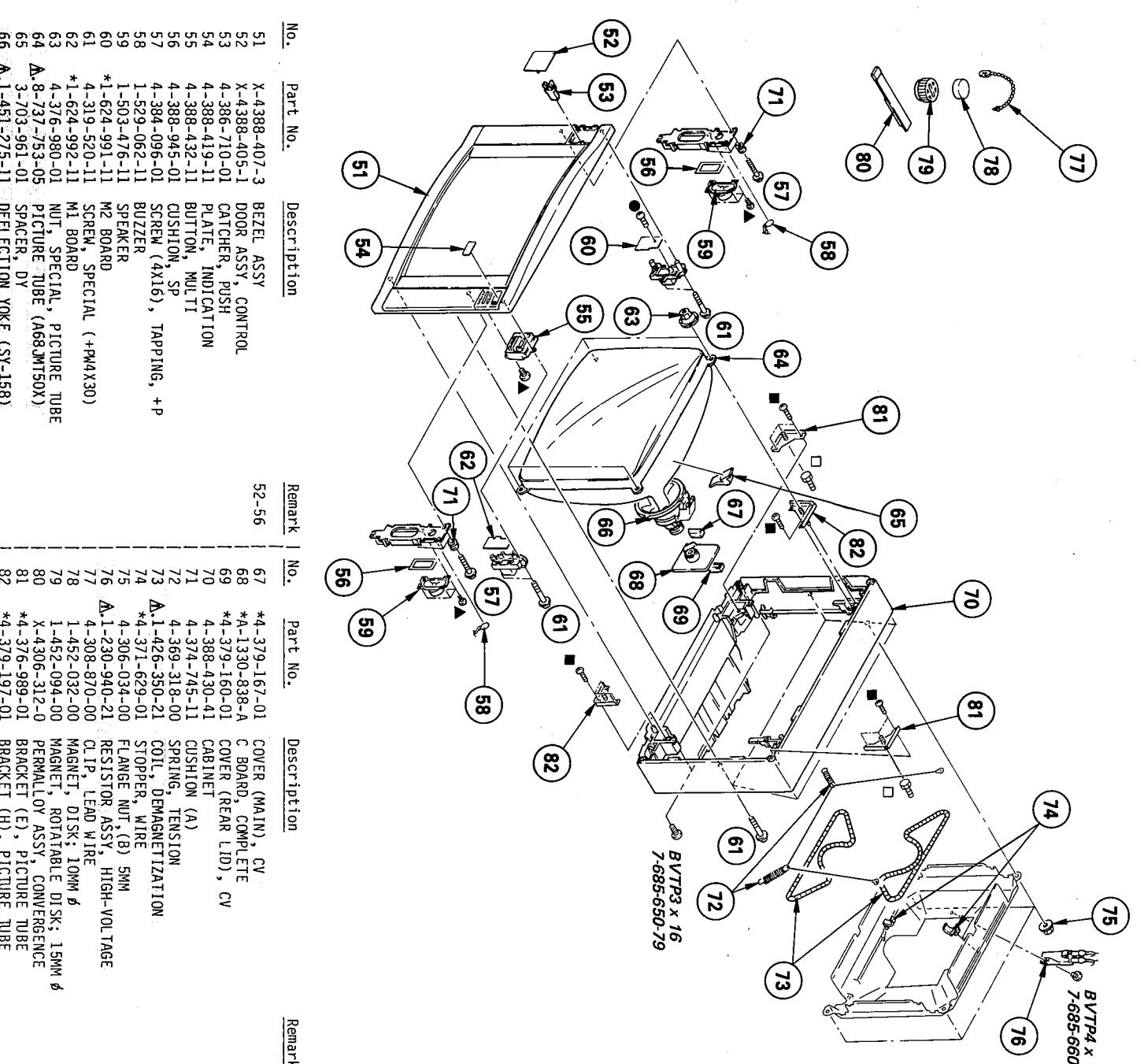
No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	3-531-576-31	RIVET (DIA. 3) NYLON		9		U BOARD, COMPLETE	
2	Δ.1-439-372-13	TRANSFORMER ASSY, FLYBACK		10		TERMINAL BOARD, ANTENNA	
3	*A-1296-423-A	A BOARD, COMPLETE		11		COVER, REAR	
4	*4-376-053-01	ANCHOR, PC BOARD		12		U1 BOARD	
5	A-1-663-771-11	TUNER, ET CTP201A		13		V BOARD, COMPLETE	
6	4-388-328-01	GROMMET, AC CORD		14		SUPPORT, PC	
7	Δ.1-559-396-11	CORD, POWER		15		B BOARD, COMPLETE	
8	Δ.1-417-159-11	SELECTOR, ANTENNA					

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

#### 7.2. PICTURE TUBE

- ▲: BVTP4 x 12 7-685-661-14
- : BVTP3 x 12 7-685-648-79
- : BVTP4 x 16 7-685-663-79
- : HEXAGON BOLT 5 x 20 7-683-340-07



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	X-4388-407-3	BEZEL ASSY		51	X-4388-407-3	BEZEL ASSY	
52	X-4388-405-1	DOOR ASSY, CONTROL		52	X-4388-405-1	DOOR ASSY, CONTROL	
53	4-386-710-01	CATCHER, PUSH		53	4-386-710-01	CATCHER, PUSH	
54	4-388-419-11	PLATE, INDICATION		54	4-388-419-11	PLATE, INDICATION	
55	4-388-432-11	BUTTON, MULTI		55	4-388-432-11	BUTTON, MULTI	
56	4-388-945-01	CUSHION, SP		56	4-388-945-01	CUSHION, SP	
57	4-384-096-01	SCREW (4X16), TAPPING, +P		57	4-384-096-01	SCREW (4X16), TAPPING, +P	
58	4-388-428-11	Buzzer		58	4-388-428-11	Buzzer	
59	1-529-062-11	SPEAKER		59	1-529-062-11	SPEAKER	
60	*1-625-169-11	M2 BOARD		60	*1-625-169-11	M2 BOARD	
61	4-319-520-11	SCREW, SPECIAL (+FW4X30)		61	4-319-520-11	SCREW, SPECIAL (+FW4X30)	
62	*1-624-992-11	M1 BOARD		62	*1-624-992-11	M1 BOARD	
63	4-376-980-01	NUT, SPECIAL, PICTURE TUBE		63	4-376-980-01	NUT, SPECIAL, PICTURE TUBE	
64	Δ.8-737-753-05	PICTURE TUBE (A68JM50X)		64	Δ.8-737-753-05	PICTURE TUBE (A68JM50X)	
65	3-703-961-01	SPACER, DY		65	3-703-961-01	SPACER, DY	
66	Δ.1-451-275-11	DEFLECTION YOKE (SY-158)		66	Δ.1-451-275-11	DEFLECTION YOKE (SY-158)	

No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	X-4388-407-3	BEZEL ASSY		51	X-4388-407-3	BEZEL ASSY	
52	X-4388-405-1	DOOR ASSY, CONTROL		52	X-4388-405-1	DOOR ASSY, CONTROL	
53	4-386-710-01	CATCHER, PUSH		53	4-386-710-01	CATCHER, PUSH	
54	4-388-419-11	PLATE, INDICATION		54	4-388-419-11	PLATE, INDICATION	
55	4-388-432-11	BUTTON, MULTI		55	4-388-432-11	BUTTON, MULTI	
56	4-388-945-01	CUSHION, SP		56	4-388-945-01	CUSHION, SP	
57	4-384-096-01	SCREW (4X16), TAPPING, +P		57	4-384-096-01	SCREW (4X16), TAPPING, +P	
58	4-388-428-11	Buzzer		58	4-388-428-11	Buzzer	
59	1-529-062-11	SPEAKER		59	1-529-062-11	SPEAKER	
60	*1-625-169-11	M2 BOARD		60	*1-625-169-11	M2 BOARD	
61	4-319-520-11	SCREW, SPECIAL (+FW4X30)		61	4-319-520-11	SCREW, SPECIAL (+FW4X30)	
62	*1-624-992-11	M1 BOARD		62	*1-624-992-11	M1 BOARD	
63	4-376-980-01	NUT, SPECIAL, PICTURE TUBE		63	4-376-980-01	NUT, SPECIAL, PICTURE TUBE	
64	Δ.8-737-753-05	PICTURE TUBE (A68JM50X)		64	Δ.8-737-753-05	PICTURE TUBE (A68JM50X)	
65	3-703-961-01	SPACER, DY		65	3-703-961-01	SPACER, DY	
66	Δ.1-451-275-11	DEFLECTION YOKE (SY-158)		66	Δ.1-451-275-11	DEFLECTION YOKE (SY-158)	

## SECTION 8

## ELECTRICAL PARTS LIST

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

## CAPACITORS

MF :  $\mu$ F, PF :  $\mu$ F, MMH : mH, UH :  $\mu$ H

- The components identified by  $\blacksquare$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- \* : Selected to yield optimum performance.

Ref.No.	Part No.	Description			Remark	Ref.No.	Part No.	Description			Remark
	*A-1135-496-A	B BOARD, COMPLETE	*****	*****		C1305	1-102-971-00	CERAMIC	82PF	5%	50V
						C1306	1-102-976-00	CERAMIC	180PF	5%	50V
	*1-560-125-00	PLUG, CONNECTOR (2.5MM PITCH)				C1307	1-108-387-00	MYLAR	0.068MF	10%	100V
	*4-334-250-00	CASE, SHIELD (MAIN)				C1308	1-102-816-00	CERAMIC	120PF	5%	50V
	*4-334-251-00	LID, UPPER, SHIELD CASE				C1309	1-102-961-00	CERAMIC	27PF	5%	50V
	*4-334-252-00	LID, REAR, SHIELD CASE				C1310	1-102-963-00	CERAMIC	33PF	5%	50V
		CONNECTOR				C1311	1-123-875-11	ELECT	10MF	20%	50V
B1	*1-566-061-11	PIN, CONNECTOR 9P				C1312	1-124-902-00	ELECT	0.47MF	20%	50V
B2	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)				C1313	1-124-902-00	ELECT	0.47MF	20%	50V
B3	*1-566-060-11	PIN, CONNECTOR 8P				C1314	1-101-004-00	CERAMIC	0.01MF		
B4	*1-566-057-11	PIN, CONNECTOR 5P				C1315	1-101-004-00	CERAMIC	0.01MF		
B5	*1-566-058-11	PIN, CONNECTOR 6P				C1316	1-102-971-00	CERAMIC	82PF	5%	50V
B7	*1-566-057-11	PIN, CONNECTOR 5P				C1317	1-101-888-00	CERAMIC	68PF	5%	50V
B9	*1-566-058-11	PIN, CONNECTOR 6P				C1318	1-102-816-00	CERAMIC	120PF	5%	50V
B10	*1-566-061-11	PIN, CONNECTOR 9P				C1319	1-102-976-00	CERAMIC	180PF	5%	50V
B11	*1-566-057-11	PIN, CONNECTOR 5P				C1320	1-124-963-11	ELECT	33MF	20%	16V
B12	*1-566-055-11	PIN, CONNECTOR 3P				C1321	1-101-004-00	CERAMIC	0.01MF		
		CAPACITOR				C1322	1-102-949-00	CERAMIC	12PF	5%	50V
C1201	1-123-875-11	ELECT	10MF	20%	50V	C1323	1-102-959-00	CERAMIC	22PF	5%	50V
C1202	1-123-875-11	ELECT	10MF	20%	50V	C1324	1-124-499-11	ELECT	1MF	20%	50V
C1203	1-124-119-00	ELECT	330MF	20%	16V	C1325	1-106-367-00	MYLAR	0.01MF	10%	100V
C1204	1-126-101-11	ELECT	100MF	20%	16V	C1326	1-101-004-00	CERAMIC	0.01MF		
C1205	1-124-119-00	ELECT	330MF	20%	16V	C1327	1-123-875-11	ELECT	10MF	20%	50V
C1206	1-124-472-11	ELECT	470MF	20%	10V	C1328	1-101-004-00	CERAMIC	0.01MF		
C1207	1-124-908-11	ELECT	22MF	20%	50V	C1329	1-101-004-00	CERAMIC	0.01MF		
C1208	1-126-101-11	ELECT	100MF	20%	16V	C1330	1-106-383-00	MYLAR	0.047MF	10%	100V
C1209	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C1331	1-106-383-00	MYLAR	0.047MF	10%	100V
C1210	1-101-003-00	CERAMIC	0.0047MF			C1332	1-106-383-00	MYLAR	0.047MF	10%	100V
						C1333	1-106-383-00	ELECT	0.1MF	20%	50V
C1211	1-101-003-00	CERAMIC	0.0047MF			C1334	1-124-463-00	ELECT	0.22MF	20%	50V
C1212	1-102-953-00	CERAMIC	18PF	5%	50V	C1336	1-124-464-11	ELECT	1MF	20%	50V
C1213	1-124-499-11	ELECT	1MF	20%	50V	C1337	1-124-464-11	ELECT	0.22MF	20%	50V
C1214	1-102-959-00	CERAMIC	22PF	5%	50V	C1338	1-124-902-00	ELECT	0.47MF	20%	50V
C1215	1-102-961-00	CERAMIC	27PF	5%	50V	C1339	1-101-004-00	CERAMIC	0.01MF		
C1216	1-102-965-00	CERAMIC	39PF	5%	50V	C1340	1-124-464-11	ELECT	0.22MF	20%	50V
C1217	1-124-472-11	ELECT	470MF	20%	10V	C1341	1-123-875-11	ELECT	10MF	20%	50V
C1218	1-101-004-00	CERAMIC	0.01MF			C1342	1-101-004-00	CERAMIC	0.01MF		
C1219	1-101-002-00	CERAMIC	0.0022MF			C1343	1-101-004-00	CERAMIC	0.01MF		
C1220	1-102-973-00	CERAMIC	100PF	5%	50V	C1344	1-124-477-11	ELECT	47MF	20%	16V
C1221	1-101-880-00	CERAMIC	47PF	5%	50V	C1345	1-124-963-11	ELECT	33MF	20%	16V
C1222	1-101-880-00	CERAMIC	47PF	5%	50V	C1346	1-123-875-11	ELECT	10MF	20%	50V
C1223	1-124-477-11	ELECT	47MF	20%	16V	C1347	1-106-351-00	MYLAR	0.0022MF	10%	100V
C1224	1-126-101-11	ELECT	100MF	20%	16V	C1349	1-102-971-00	CERAMIC	82PF	5%	50V
C1225	1-126-101-11	ELECT	100MF	20%	16V	C1350	1-102-961-00	CERAMIC	27PF	5%	50V
C1230	1-102-816-00	CERAMIC	120PF	5%	50V	C1351	1-106-383-00	MYLAR	0.047MF	10%	100V
C1231	1-102-978-00	CERAMIC	220PF	5%	50V	C1352	1-124-477-11	ELECT	47MF	20%	16V
C1301	1-124-477-11	ELECT	47MF	20%	16V	C1353	1-123-875-11	ELECT	10MF	20%	50V
C1302	1-124-477-11	ELECT	47MF	20%	16V	C1355	1-106-383-00	MYLAR	0.047MF	10%	100V
C1303	1-124-477-11	ELECT	47MF	20%	16V	C1356	1-123-875-11	ELECT	10MF	20%	50V
C1304	1-124-477-11	ELECT	47MF	20%	16V	C1357	1-130-495-00	MYLAR	0.1MF	5%	50V
						C1358	1-124-499-11	ELECT	1MF	20%	50V
						C1362	1-106-351-00	MYLAR	0.0022MF	10%	100V
						C1363	1-102-816-00	CERAMIC	120PF	5%	50V
						C1364	1-124-499-11	ELECT	1MF	20%	50V



B

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R1223	1-249-429-11	CARBON	10K	5%	1/4W	R1296	1-249-424-11	CARBON	3.9K	5%	1/4W
R1224	1-249-417-11	CARBON	1K	5%	1/4W	R1297	1-249-415-11	CARBON	680	5%	1/4W
R1225	1-249-417-11	CARBON	1K	5%	1/4W	R1298	1-247-713-11	CARBON	1K	5%	1/4W
R1226	1-249-417-11	CARBON	1K	5%	1/4W	R1300	1-259-871-15	CARBON	6.8M	5%	1/4W
R1227	1-249-409-11	CARBON	220	5%	1/4W	R1302	1-247-704-11	CARBON	220	5%	1/4W
R1228	1-249-421-11	CARBON	2.2K	5%	1/4W	R1306	1-249-425-11	CARBON	4.7K	5%	1/4W
R1229	1-249-409-11	CARBON	220	5%	1/4W	R1307	1-249-419-11	CARBON	1.5K	5%	1/4W
R1230	1-249-409-11	CARBON	220	5%	1/4W	R1308	1-249-419-11	CARBON	1.5K	5%	1/4W
R1231	1-249-429-11	CARBON	10K	5%	1/4W	R1309	1-249-417-11	CARBON	1K	5%	1/4W
R1232	1-249-421-11	CARBON	2.2K	5%	1/4W	R1310	1-249-420-11	CARBON	1.8K	5%	1/4W
R1233	1-249-421-11	CARBON	2.2K	5%	1/4W	R1311	1-249-414-11	CARBON	560	5%	1/4W
R1234	1-249-421-11	CARBON	2.2K	5%	1/4W	R1312	1-249-420-11	CARBON	1.8K	5%	1/4W
R1235	1-249-421-11	CARBON	2.2K	5%	1/4W	R1313	1-249-417-11	CARBON	1K	5%	1/4W
R1236	1-249-429-11	CARBON	10K	5%	1/4W	R1314	1-249-417-11	CARBON	1K	5%	1/4W
R1237	1-249-417-11	CARBON	1K	5%	1/4W	R1315	1-246-541-00	CARBON	680K	5%	1/4W
R1238	1-249-429-11	CARBON	10K	5%	1/4W	R1316	1-247-887-00	CARBON	220K	5%	1/4W
R1240	1-215-905-11	METAL OXIDE	10	5%	3W	R1317	1-247-719-11	CARBON	3.3K	5%	1/4W
R1241	1-215-859-00	METAL OXIDE	22	5%	1W	R1318	1-249-423-11	CARBON	3.3K	5%	1/4W
R1242	1-249-429-11	CARBON	10K	5%	1/4W	R1319	1-249-429-11	CARBON	10K	5%	1/4W
R1243	1-249-425-11	CARBON	4.7K	5%	1/4W	R1320	1-249-417-11	CARBON	1K	5%	1/4W
R1244	1-249-421-11	CARBON	2.2K	5%	1/4W	R1321	1-249-426-11	CARBON	5.6K	5%	1/4W
R1245	1-249-425-11	CARBON	4.7K	5%	1/4W	R1322	1-249-417-11	CARBON	1K	5%	1/4W
R1246	1-249-433-11	CARBON	22K	5%	1/4W	R1323	1-249-420-11	CARBON	1.8K	5%	1/4W
R1247	1-249-414-11	CARBON	560	5%	1/4W	R1324	1-247-708-11	CARBON	470	5%	1/4W
R1248	1-249-416-11	CARBON	820	5%	1/4W	R1325	1-249-417-11	CARBON	1K	5%	1/4W
R1250	1-247-717-11	CARBON	2.2K	5%	1/4W	R1326	1-247-713-11	CARBON	1K	5%	1/4W
R1251	1-249-415-11	CARBON	680	5%	1/4W	R1327	1-249-417-11	CARBON	1K	5%	1/4W
R1252	1-249-414-11	CARBON	560	5%	1/4W	R1328	1-249-425-11	CARBON	4.7K	5%	1/4W
R1253	1-249-434-11	CARBON	27K	5%	1/4W	R1329	1-249-417-11	CARBON	1K	5%	1/4W
R1254	1-249-421-11	CARBON	2.2K	5%	1/4W	R1330	1-249-433-11	CARBON	22K	5%	1/4W
R1255	1-249-421-11	CARBON	2.2K	5%	1/4W	R1331	1-249-431-11	CARBON	15K	5%	1/4W
R1256	1-249-423-11	CARBON	3.3K	5%	1/4W	R1332	1-249-435-11	CARBON	33K	5%	1/4W
R1257	1-249-416-11	CARBON	820	5%	1/4W	R1333	1-249-429-11	CARBON	10K	5%	1/4W
R1258	1-249-433-11	CARBON	22K	5%	1/4W	R1334	1-249-429-11	CARBON	10K	5%	1/4W
R1259	1-249-416-11	CARBON	820	5%	1/4W	R1335	1-249-431-11	CARBON	15K	5%	1/4W
R1260	1-249-416-11	CARBON	820	5%	1/4W	R1336	1-249-419-11	CARBON	1.5K	5%	1/4W
R1261	1-247-710-11	CARBON	560	5%	1/4W	R1339	1-249-429-11	CARBON	10K	5%	1/4W
R1262	1-249-414-11	CARBON	560	5%	1/4W	R1340	1-249-428-11	CARBON	8.2K	5%	1/4W
R1263	1-249-419-11	CARBON	1.5K	5%	1/4W	R1341	1-247-720-11	CARBON	3.9K	5%	1/4W
R1264	1-249-414-11	CARBON	560	5%	1/4W	R1342	1-249-415-11	CARBON	680	5%	1/4W
R1265	1-249-418-11	CARBON	1.2K	5%	1/4W	R1343	1-249-421-11	CARBON	2.2K	5%	1/4W
R1266	1-247-715-11	CARBON	1.5K	5%	1/4W	R1344	1-249-411-11	CARBON	330	5%	1/4W
R1267	1-247-704-11	CARBON	220	5%	1/4W	R1345	1-247-723-11	CARBON	6.8K	5%	1/4W
R1268	1-249-411-11	CARBON	330	5%	1/4W	R1346	1-249-423-11	CARBON	3.3K	5%	1/4W
R1269	1-246-543-00	CARBON	820K	5%	1/4W	R1347	1-249-421-11	CARBON	2.2K	5%	1/4W
R1272	1-249-421-11	CARBON	2.2K	5%	1/4W	R1348	1-249-421-11	CARBON	2.2K	5%	1/4W
R1273	1-249-422-11	CARBON	2.7K	5%	1/4W	R1349	1-249-429-11	CARBON	10K	5%	1/4W
R1274	1-247-700-11	CARBON	100	5%	1/4W	R1350	1-247-720-11	CARBON	3.9K	5%	1/4W
R1276	1-249-417-11	CARBON	1K	5%	1/4W	R1351	1-249-418-11	CARBON	1.2K	5%	1/4W
R1277	1-249-428-11	CARBON	8.2K	5%	1/4W	R1352	1-247-712-11	CARBON	820	5%	1/4W
R1278	1-249-429-11	CARBON	10K	5%	1/4W	R1353	1-249-420-11	CARBON	1.8K	5%	1/4W
R1279	1-249-428-11	CARBON	8.2K	5%	1/4W	R1354	1-249-422-11	CARBON	2.7K	5%	1/4W
R1280	1-249-429-11	CARBON	10K	5%	1/4W	R1355	1-247-720-11	CARBON	3.9K	5%	1/4W
R1281	1-249-419-11	CARBON	1.5K	5%	1/4W	R1356	1-249-419-11	CARBON	1.5K	5%	1/4W
R1282	1-249-424-11	CARBON	3.9K	5%	1/4W	R1357	1-249-423-11	CARBON	3.3K	5%	1/4W
R1283	1-249-417-11	CARBON	1K	5%	1/4W	R1358	1-249-424-11	CARBON	3.9K	5%	1/4W
R1284	1-249-419-11	CARBON	1.5K	5%	1/4W	R1359	1-249-424-11	CARBON	3.9K	5%	1/4W
R1286	1-249-437-11	CARBON	47K	5%	1/4W	R1360	1-249-422-11	CARBON	2.7K	5%	1/4W
R1288	1-249-417-11	CARBON	1K	5%	1/4W	R1361	1-249-422-11	CARBON	2.7K	5%	1/4W
R1289	1-249-414-11	CARBON	560	5%	1/4W	R1362	1-249-417-11	CARBON	1K	5%	1/4W
R1291	1-249-431-11	CARBON	15K	5%	1/4W	R1363	1-249-418-11	CARBON	1.2K	5%	1/4W
R1292	1-249-437-11	CARBON	47K	5%	1/4W	R1364	1-249-427-11	CARBON	6.8K	5%	1/4W
R1293	1-249-429-11	CARBON	10K	5%	1/4W	R1365	1-249-436-11	CARBON	39K	5%	1/4W
R1294	1-249-465-11	CARBON	47K	5%	1/4W	R1366	1-249-422-11	CARBON	2.7K	5%	1/4W
R1295	1-249-421-11	CARBON	2.2K	5%	1/4W	R1367	1-249-441-11	CARBON	100K	5%	1/4W

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Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1368	1-249-436-11	CARBON	39K 5% 1/4W			<u>CONNECTOR</u>	
R1370	1-247-704-11	CARBON	220 5% 1/4W	A1	*1-566-060-11	PIN, CONNECTOR 8P	
R1372	1-249-435-11	CARBON	33K 5% 1/4W	A2	*1-506-349-21	3P PLUG (L)	
R1373	1-247-713-11	CARBON	1K 5% 1/4W	A3	*1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P	
R1374	1-249-462-11	CARBON	22K 5% 1/4W	A4	*1-566-055-11	PIN, CONNECTOR 3P	
R1375	1-249-427-11	CARBON	6.8K 5% 1/4W	A5	*1-566-059-11	PIN, CONNECTOR 7P	
R1376	1-249-421-11	CARBON	2.2K 5% 1/4W	A6	*1-566-054-11	PIN, CONNECTOR 2P	
R1377	1-249-422-11	CARBON	2.7K 5% 1/4W	A7	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
R1378	1-249-425-11	CARBON	4.7K 5% 1/4W	A8	*1-566-057-11	PIN, CONNECTOR 5P	
R1379	1-247-711-11	CARBON	680 5% 1/4W	A9	*1-508-768-00	6P PLUG	
R1380	1-249-415-11	CARBON	680 5% 1/4W	A10	*1-508-765-00	3P PLUG (M)	
R1381	1-249-415-11	CARBON	680 5% 1/4W	A11	*1-566-057-11	PIN, CONNECTOR 5P	
R1382	1-249-438-11	CARBON	56K 5% 1/4W	A12	*1-566-062-11	PIN, CONNECTOR 10P	
R1383	1-247-717-11	CARBON	2.2K 5% 1/4W	A13	*1-566-058-11	PIN, CONNECTOR 6P	
R1384	1-247-713-11	CARBON	1K 5% 1/4W	A14	*1-508-766-00	4P PLUG (M)	
R1385	1-247-713-11	CARBON	1K 5% 1/4W	A15	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P	
R1386	1-249-433-11	CARBON	22K 5% 1/4W	A16	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
R1387	1-249-421-11	CARBON	2.2K 5% 1/4W	A17	*1-566-054-11	PIN, CONNECTOR 2P	
R1388	1-249-409-11	CARBON	220 5% 1/4W	A18	*1-508-767-00	5P PLUG	
R1389	1-249-409-11	CARBON	220 5% 1/4W	A19	*1-566-063-11	PIN, CONNECTOR 11P	
R1390	1-249-409-11	CARBON	220 5% 1/4W	A20	*1-566-056-11	PIN, CONNECTOR 4P	
R1391	1-247-889-00	CARBON	270K 5% 1/4W	A30	*1-566-057-11	PIN, CONNECTOR 5P	
R1392	1-247-713-11	CARBON	1K 5% 1/4W	A31	*1-566-055-11	PIN, CONNECTOR 3P	
R1393	1-247-717-11	CARBON	2.2K 5% 1/4W	A32	*1-566-061-11	PIN, CONNECTOR 9P	
R1394	1-247-704-11	CARBON	220 5% 1/4W	A33	*1-566-058-11	PIN, CONNECTOR 6P	
R1395	1-247-704-11	CARBON	220 5% 1/4W	A35	*1-566-054-11	PIN, CONNECTOR 2P	
R1396	1-249-429-11	CARBON	10K 5% 1/4W	A36	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)	
R1397	1-249-425-11	CARBON	4.7K 5% 1/4W	DY1	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P	
R1398	1-249-435-11	CARBON	33K 5% 1/4W				
R1399	1-249-429-11	CARBON	10K 5% 1/4W				
<u>VARIABLE RESISTOR</u>							
RV1301	1-238-015-11	RES, ADJ, CARBON	4.7K	C001	1-102-961-00	CERAMIC	27PF 5% 50V
RV1302	1-238-017-11	RES, ADJ, CARBON	22K	C002	1-102-965-00	CERAMIC	39PF 5% 50V
RV1304	1-238-017-11	RES, ADJ, CARBON	22K	C003	1-124-927-11	ELECT	4.7MF 20% 50V
RV1305	1-238-011-11	RES, ADJ, CARBON	470	C006	1-101-880-00	CERAMIC	47PF 5% 50V
RV1306	1-238-011-11	RES, ADJ, CARBON	470	C007	1-101-880-00	CERAMIC	47PF 5% 50V
<u>THERMISTOR</u>							
TH1301	1-807-976-11	THERMISTOR		C008	1-102-074-00	CERAMIC	0.001MF 10% 50V
<u>TUNER</u>							
TU1201	A-1-463-771-11	TUNER, ET (BTP-201A)		C009	1-101-006-00	CERAMIC	0.047MF 50V
<u>CRYSTAL</u>							
X1201	1-567-192-11	OSCILLATOR, CERAMIC		C010	1-102-978-00	CERAMIC	220PF 5% 50V
X1301	1-567-505-11	OSCILLATOR, CRYSTAL		C011	1-108-429-51	MYLAR	0.047MF 200V
X1302	1-577-099-11	VIBRATOR, CERAMIC		C012	1-124-927-11	ELECT	4.7MF 20% 50V
*****							
*A-1296-423-A A BOARD, COMPLETE							
*****							
*4-336-030-00	CASE (MAIN), SHIELD, VIF			C027	1-102-978-00	CERAMIC	220PF 5% 50V
*4-341-751-01	PAWL			C028	1-102-820-00	CERAMIC	330PF 5% 50V
*4-341-751-01	PAWL			C029	1-101-004-00	CERAMIC	0.01MF 50V
*4-341-752-01	EYELET			C030	1-102-074-00	CERAMIC	0.001MF 10% 50V
*4-356-327-00	CASE (LOWER), SHIELD, VIF			C031	1-101-004-00	CERAMIC	0.01MF 50V
*****							
*4-362-028-00	CASE (UPPER), SHIELD, VIF			C032	1-108-378-91	MYLAR	0.012MF 10% 100V
				C033	1-108-379-91	MYLAR	0.015MF 10% 100V
				C035	1-106-367-00	MYLAR	0.01MF 10% 100V
				C036	1-130-495-00	MYLAR	0.1MF 5% 50V
				C101	1-123-875-11	ELECT	10MF 20% 50V
				C102	1-124-908-11	ELECT	22MF 20% 25V
				C103	1-124-360-00	ELECT	1000MF 20% 16V
				C104	1-126-101-11	ELECT	100MF 20% 16V
				C106	1-119-160-00	ELECT	470MF 10V
				C116	1-106-367-00	MYLAR	0.01MF 10% 100V
				C121	1-124-477-11	ELECT	47MF 20% 16V
				C122	1-124-963-11	ELECT	33MF 20% 16V
				C135	1-106-182-00	MYLAR	0.0027MF 5% 100V

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

Les composants identifies par une trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
<b><u>COMPOSITION CIRCUIT BLOCK</u></b>											
CP103	1-233-118-11	COMPOSITION CIRCUIT BLOCK		IC203	8-759-006-10	IC CX20061					
CP104	1-233-118-11	COMPOSITION CIRCUIT BLOCK		IC301	8-752-031-72	IC CXA1013AS					
CP105	1-233-153-11	COMPOSITION CIRCUIT BLOCK		IC303	8-759-710-04	IC NJM78M93FD					
CP106	1-233-117-11	COMPOSITION CIRCUIT BLOCK		IC501	8-759-402-35	IC AN5521					
CP108	1-233-118-11	COMPOSITION CIRCUIT BLOCK		IC502	8-759-145-58	IC UPC4558C					
CP301	1-236-078-11	NETWORK, RES, THICK FILM		IC601▲	8-749-930-35	IC STR3035					
					4-369-267-01	SPACER, MICA; IC601					
				MM201	8-749-900-80	IC BX-1458					
<b><u>DIODE</u></b>											
D001	8-719-101-39	DIODE RD3.6E-L2		<b><u>IF BLOCK</u></b>							
D003	8-719-911-19	DIODE 1SS119		IF201	1-464-755-11	IF BLOCK (IFE-450)					
D101	8-719-110-78	DIODE RD33ES-B2		<b><u>COIL</u></b>							
D112	8-719-911-19	DIODE 1SS119		L103	1-410-482-31	INDUCTOR	100UH				
D113	8-719-911-19	DIODE 1SS119		L104	1-410-465-41	INDUCTOR	3.9UH				
D114	8-719-911-19	DIODE 1SS119		L106	1-410-465-41	INDUCTOR	3.9UH				
D115	8-719-109-89	DIODE RD5.6ES-B2		L203	1-410-469-41	INDUCTOR	8.2UH				
D117	8-719-109-89	DIODE RD5.6ES-B2		L301	1-410-421-11	INDUCTOR	15UH				
D124	8-719-911-19	DIODE 1SS119		<b><u>NEON LAMP</u></b>							
D126	8-719-911-19	DIODE 1SS119		L501	1-408-938-00	INDUCTOR	22UH				
D129	8-719-911-19	DIODE 1SS119		L502	1-408-225-00	INDUCTOR	3.3UH				
D191	8-719-911-19	DIODE 1SS119		L504	1-459-313-00	COIL WITH CORE (HWC)					
D301	8-719-911-19	DIODE 1SS119		L505	1-459-104-00	COIL, DUST CORE					
D350	8-719-911-19	DIODE 1SS119		L506	1-407-365-00	COIL, CHOKE					
D351	8-719-911-19	DIODE 1SS119		<b><u>PROTECTOR MODULE</u></b>							
D505	8-719-911-19	DIODE 1SS119		PM501▲	1-235-963-11	PROTECTOR MODULE (PM-9)					
D506	8-719-911-19	DIODE 1SS119		<b><u>TRANSISTOR</u></b>							
D508	8-719-911-55	DIODE U05G		Q001	8-729-178-54	TRANSISTOR 2SC2785					
D509	8-719-911-19	DIODE 1SS119		Q002	8-729-178-54	TRANSISTOR 2SC2785					
D510	8-719-911-55	DIODE U05G		Q003	8-729-117-54	TRANSISTOR 2SA1175					
D511	8-719-918-77	DIODE V19G		Q004	8-729-178-54	TRANSISTOR 2SC2785					
D512	8-719-945-80	DIODE ERC06-15		Q005	8-729-117-54	TRANSISTOR 2SA1175					
D513	8-719-945-80	DIODE ERC06-15		<b><u>FUSE</u></b>							
D514	8-719-900-26	DIODE ERD29-08J		Q006	8-729-178-54	TRANSISTOR 2SC2785					
D515	8-719-911-55	DIODE U05G		Q101	8-729-178-54	TRANSISTOR 2SC2785					
D516	8-719-911-55	DIODE U05G		Q110	8-729-178-54	TRANSISTOR 2SC2785					
D517	8-719-924-06	DIODE ERC24-06S		Q112	8-729-378-91	TRANSISTOR 2SD789					
D518	8-719-300-65	DIODE ES1F		Q113	8-729-117-54	TRANSISTOR 2SA1175					
D519	8-719-300-65	DIODE ES1F		Q114	8-729-178-54	TRANSISTOR 2SC2785					
D597	8-719-902-85	DIODE RG3G-5007L		Q116	8-729-178-54	TRANSISTOR 2SC2785					
D598	8-719-549-41	DIODE ERB43-08		Q203▲	8-729-378-84	TRANSISTOR 2SD788					
D599	8-719-110-17	DIODE RD10ES-B2		Q301	8-729-178-54	TRANSISTOR 2SC2785					
D601▲	8-719-305-07	DIODE RBV-406H		Q302	8-729-178-54	TRANSISTOR 2SC2785					
D602	8-719-911-55	DIODE U05G		<b><u>IC</u></b>							
D603	8-719-304-63	DIODE RM11C		Q303	8-729-178-54	TRANSISTOR 2SC2785					
D604	8-719-304-63	DIODE RM11C		Q304	8-729-178-54	TRANSISTOR 2SC2785					
D605	8-719-109-84	DIODE RD5.1ES-B1		Q305	8-729-117-54	TRANSISTOR 2SA1175					
D606	8-719-911-55	DIODE U05G		Q311	8-729-178-54	TRANSISTOR 2SC2785					
D1501	8-719-549-41	DIODE ERB43-08		Q354	8-729-117-54	TRANSISTOR 2SA1175					
D1502	8-719-110-04	DIODE RD7.5ES-B3									
D1503	8-719-902-85	DIODE RG3G-5007L									
<b><u>FUSE</u></b>											
F601▲	1-532-509-11	FUSE, GLASS TUBE 6.3A/125V									
	1-533-190-11	CLIP, FUSE; F601									
F602▲	1-532-742-11	FUSE, GLASS TUBE 1.6A/125V									
	*1-533-189-11	HOLDER, FUSE; F602									
IC101	8-759-971-66	IC MB88E734-111									
IC201	8-749-900-15	IC SI-4102									
IC202	8-749-900-15	IC SI-4102									

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q356	8-729-178-54	TRANSISTOR 2SC2785		R064	1-249-417-11	CARBON	1K 5% 1/4W
Q357	8-729-178-54	TRANSISTOR 2SC2785		R065	1-249-416-11	CARBON	820 5% 1/4W
Q371	8-729-178-54	TRANSISTOR 2SC2785		R066	1-249-429-11	CARBON	10K 5% 1/4W
Q501	8-729-107-26	TRANSISTOR 2SD1585		R067	1-249-417-11	CARBON	1K 5% 1/4W
Q502	8-729-117-54	TRANSISTOR 2SA1175		R068	1-249-411-11	CARBON	330 5% 1/4W
Q503	8-729-117-54	TRANSISTOR 2SA1175		R069	1-249-411-11	CARBON	330 5% 1/4W
Q504	8-729-178-54	TRANSISTOR 2SC2785		R070	1-249-411-11	CARBON	330 5% 1/4W
Q505	8-729-117-54	TRANSISTOR 2SA1175		R071	1-249-421-11	CARBON	2.2K 5% 1/4W
Q506	8-729-178-54	TRANSISTOR 2SC2785		R072	1-249-421-11	CARBON	2.2K 5% 1/4W
Q550	8-729-168-82	TRANSISTOR 2SC2688		R073	1-249-421-11	CARBON	2.2K 5% 1/4W
Q551	8-729-304-50	TRANSISTOR 2SD1941-06		R074	1-249-425-11	CARBON	4.7K 5% 1/4W
*4-378-214-01 HOLDER, TR; Q551				R075	1-247-883-00	CARBON	150K 5% 1/4W
Q599	8-729-378-91	TRANSISTOR 2SD789		R076	1-249-433-11	CARBON	22K 5% 1/4W
Q601	8-729-255-12	TRANSISTOR 2SC2551		R078	1-249-411-11	CARBON	330 5% 1/4W
				R080	1-249-433-11	CARBON	22K 5% 1/4W
<b>RESISTOR</b>							
R002	1-249-423-11	CARBON	3.3K 5% 1/4W	R085	1-247-717-11	CARBON	2.2K 5% 1/4W
R003	1-249-427-11	CARBON	6.8K 5% 1/4W	R086	1-247-725-11	CARBON	10K 5% 1/4W
R007	1-249-429-11	CARBON	10K 5% 1/4W	R087	1-249-421-11	CARBON	2.2K 5% 1/4W
R008	1-249-429-11	CARBON	10K 5% 1/4W	R088	1-247-702-11	CARBON	150 5% 1/4W
R009	1-249-431-11	CARBON	15K 5% 1/4W	R089	1-249-433-11	CARBON	22K 5% 1/4W
R010	1-249-421-11	CARBON	2.2K 5% 1/4W	R090	1-246-529-00	CARBON	220K 5% 1/4W
R011	1-249-421-11	CARBON	2.2K 5% 1/4W	R091	1-249-433-11	CARBON	22K 5% 1/4W
R012	1-249-421-11	CARBON	2.2K 5% 1/4W	R092	1-249-417-11	CARBON	1K 5% 1/4W
R013	1-249-421-11	CARBON	2.2K 5% 1/4W	R101	1-249-426-11	CARBON	5.6K 5% 1/4W
R014	1-249-412-11	CARBON	390 5% 1/4W	R102	1-249-417-11	CARBON	1K 5% 1/4W
R015	1-247-725-11	CARBON	10K 5% 1/4W	R103	1-215-923-00	METAL OXIDE	10K 5% 3W F
R016	1-249-429-11	CARBON	10K 5% 1/4W	R119	1-249-429-11	CARBON	10K 5% 1/4W
R017	1-249-429-11	CARBON	10K 5% 1/4W	R146	1-249-417-11	CARBON	1K 5% 1/4W
R018	1-249-429-11	CARBON	10K 5% 1/4W	R147	1-249-423-11	CARBON	3.3K 5% 1/4W
R019	1-249-429-11	CARBON	10K 5% 1/4W	R149	1-247-726-11	CARBON	33K 5% 1/4W
R020	1-249-414-11	CARBON	560 5% 1/4W	R150	1-249-466-11	CARBON	56K 5% 1/4W
R021	1-249-414-11	CARBON	560 5% 1/4W	R151	1-249-429-11	CARBON	10K 5% 1/4W
R022	1-249-427-11	CARBON	6.8K 5% 1/4W	R152	1-249-433-11	CARBON	22K 5% 1/4W
R023	1-249-413-11	CARBON	470 5% 1/4W	R153	1-249-429-11	CARBON	10K 5% 1/4W
R024	1-249-413-11	CARBON	470 5% 1/4W	R158	1-247-895-00	CARBON	470K 5% 1/4W
R025	1-247-725-11	CARBON	10K 5% 1/4W	R159	1-249-409-11	CARBON	220 5% 1/4W
R026	1-249-413-11	CARBON	470 5% 1/4W	R160	1-249-439-11	CARBON	68K 5% 1/4W
R027	1-247-722-11	CARBON	5.6K 5% 1/4W	R161	1-249-413-11	CARBON	470 5% 1/4W
R028	1-249-423-11	CARBON	3.3K 5% 1/4W	R170	1-249-415-11	CARBON	680 5% 1/4W
R029	1-249-421-11	CARBON	2.2K 5% 1/4W	R201	1-249-405-11	CARBON	100 5% 1/4W
R030	1-249-421-11	CARBON	2.2K 5% 1/4W	R202	1-247-700-11	CARBON	100 5% 1/4W
R031	1-249-421-11	CARBON	2.2K 5% 1/4W	R207	1-249-439-11	CARBON	68K 5% 1/4W
R032	1-249-433-11	CARBON	22K 5% 1/4W	R208	1-249-425-11	CARBON	4.7K 5% 1/4W
R033	1-249-463-11	CARBON	27K 5% 1/4W	R209	1-249-417-11	CARBON	1K 5% 1/4W
R034	1-247-725-11	CARBON	10K 5% 1/4W	R210	1-247-700-11	CARBON	100 5% 1/4W
R035	1-249-469-11	CARBON	100K 5% 1/4W	R211	1-249-433-11	CARBON	22K 5% 1/4W
R036	1-249-433-11	CARBON	22K 5% 1/4W	R213	1-249-411-11	CARBON	1.5K 5% 1/4W
R037	1-249-417-11	CARBON	1K 5% 1/4W	R214	1-249-411-11	CARBON	330 5% 1/4W
R038	1-247-704-11	CARBON	220 5% 1/4W	R217	1-247-713-11	CARBON	1K 5% 1/4W
R039	1-249-409-11	CARBON	220 5% 1/4W	R221	1-249-413-11	CARBON	470 5% 1/4W
R043	1-247-713-11	CARBON	1K 5% 1/4W	R229	1-249-411-11	CARBON	330 5% 1/4W
R044	1-247-712-11	CARBON	820 5% 1/4W	R230	1-247-706-11	CARBON	330 5% 1/4W
R045	1-247-710-11	CARBON	560 5% 1/4W	R231	1-247-700-11	CARBON	100 5% 1/4W
R046	1-249-441-11	CARBON	100K 5% 1/4W	R232	1-249-411-11	CARBON	330 5% 1/4W
R047	1-249-413-11	CARBON	470 5% 1/4W	R233	1-249-411-11	CARBON	330 5% 1/4W
R048	1-249-411-11	CARBON	330 5% 1/4W	R234	1-249-411-11	CARBON	330 5% 1/4W
R049	1-249-421-11	CARBON	2.2K 5% 1/4W	R240	1-247-721-11	CARBON	4.7K 5% 1/4W
R050	1-249-421-11	CARBON	2.2K 5% 1/4W	R250	1-249-411-11	CARBON	330 5% 1/4W
R051	1-249-433-11	CARBON	22K 5% 1/4W	R251	1-249-401-91	CARBON	301K 47% 5% 1/4W F
R052	1-249-425-11	CARBON	4.7K 5% 1/4W	R252	1-249-430-11	CARBON	12K 5% 1/4W
R053	1-249-414-11	CARBON	560 5% 1/4W	R253	1-249-434-11	CARBON	27K 5% 1/4W
R055	1-249-438-11	CARBON	56K 5% 1/4W	R254	1-249-403-11	CARBON	68 5% 1/4W
R057	1-247-725-11	CARBON	10K 5% 1/4W	R271	1-249-433-11	CARBON	22K 5% 1/4W
				R272	1-249-433-11	CARBON	22K 5% 1/4W

- The components identified by **█** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- \* : Selected to yield optimum performance.

Les composants identifiés par une trame et une marque **█** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

**A**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R290	1-249-410-11	CARBON	270 5% 1/4W F	R507	1-249-426-11	CARBON	5.6K 5% 1/4W
R291	1-249-430-11	CARBON	12K 5% 1/4W	R508	1-249-437-11	CARBON	47K 5% 1/4W
R292	▲1-249-401-91	CARBON	47 5% 1/4W F	R509	1-249-434-11	CARBON	27K 5% 1/4W
R293	1-249-434-11	CARBON	27K 5% 1/4W	R510	1-249-422-11	CARBON	2.7K 5% 1/4W
R301	1-215-472-00	METAL	130K 1% 1/6W	R512	1-249-411-11	CARBON	330 5% 1/4W
R302	1-249-437-11	CARBON	47K 5% 1/4W	R513	1-215-472-00	METAL	130K 1% 1/6W
R303	1-249-433-11	CARBON	22K 5% 1/4W	R514	1-215-459-00	METAL	39K 1% 1/6W
R306	1-249-430-11	CARBON	12K 5% 1/4W	R515	1-215-441-00	METAL	6.8K 1% 1/6W
R307	1-249-423-11	CARBON	3.3K 5% 1/4W	R516	1-249-428-11	CARBON	8.2K 5% 1/4W
R308	1-249-411-11	CARBON	330 5% 1/4W	R517	1-247-713-11	CARBON	1K 5% 1/4W
R309	1-249-411-11	CARBON	330 5% 1/4W	R519	1-249-424-11	CARBON	3.9K 5% 1/4W
R310	1-249-411-11	CARBON	330 5% 1/4W	R521	1-247-887-00	CARBON	220K 5% 1/4W
R315	1-249-417-11	CARBON	1K 5% 1/4W	R522	1-249-421-11	CARBON	2.2K 5% 1/4W
R316	1-247-713-11	CARBON	1K 5% 1/4W	R523	1-249-417-11	CARBON	1K 5% 1/4W
R318	1-249-417-11	CARBON	1K 5% 1/4W	R524	1-247-713-11	CARBON	1K 5% 1/4W
R319	1-249-417-11	CARBON	1K 5% 1/4W	R525	1-249-419-11	CARBON	1.5K 5% 1/4W
R320	1-249-417-11	CARBON	1K 5% 1/4W	R526	1-249-431-11	CARBON	15K 5% 1/4W
R323	1-249-427-11	CARBON	6.8K 5% 1/4W	R527	1-249-417-11	CARBON	1K 5% 1/4W
R325	1-249-435-11	CARBON	33K 5% 1/4W	R528	1-249-429-11	CARBON	10K 5% 1/4W
R328	1-249-414-11	CARBON	560 5% 1/4W	R529	1-249-423-11	CARBON	3.3K 5% 1/4W
R329	1-249-441-11	CARBON	100K 5% 1/4W	R530	1-249-433-11	CARBON	22K 5% 1/4W
R330	1-249-426-11	CARBON	5.6K 5% 1/4W	R531	1-246-535-00	CARBON	390K 5% 1/4W
R332	1-247-881-00	CARBON	120K 5% 1/4W	R533	1-249-417-11	CARBON	1K 5% 1/4W
R333	1-249-429-11	CARBON	10K 5% 1/4W	R534	1-249-410-11	CARBON	270 5% 1/4W
R334	1-249-413-11	CARBON	470 5% 1/4W	R535	1-249-419-11	CARBON	1.5K 5% 1/4W F
R335	1-247-721-11	CARBON	4.7K 5% 1/4W	R536	1-249-463-11	CARBON	27K 5% 1/4W
R339	1-247-725-11	CARBON	10K 5% 1/4W	R537	1-247-726-11	CARBON	33K 5% 1/4W
R340	1-249-427-11	CARBON	6.8K 5% 1/4W	R539	1-215-373-31	METAL	10 1% 1/6W
R344	1-215-894-11	METAL OXIDE	2.2K 5% 2W F	R540	1-249-405-11	CARBON	100 5% 1/4W
R348	1-247-717-11	CARBON	2.2K 5% 1/4W	R541	1-249-429-11	CARBON	10K 5% 1/4W
R349	1-249-417-11	CARBON	1K 5% 1/4W	R542	1-249-426-11	CARBON	5.6K 5% 1/4W
R350	1-249-437-11	CARBON	47K 5% 1/4W	R543	1-249-434-11	CARBON	27K 5% 1/4W
R351	1-249-441-11	CARBON	100K 5% 1/4W	R544	1-249-429-11	CARBON	10K 5% 1/4W
R352	1-247-901-11	CARBON	820K 5% 1/4W	R545	1-247-754-11	CARBON	1.5K 5% 1/2W
R353	1-249-429-11	CARBON	10K 5% 1/4W	R546	1-249-415-11	CARBON	680 5% 1/4W F
R361	1-249-429-11	CARBON	10K 5% 1/4W	R547	1-249-429-11	CARBON	10K 5% 1/4W
R362	1-216-470-00	METAL OXIDE	18 5% 3W F	R548	1-249-437-11	CARBON	47K 5% 1/4W
R364	1-249-437-11	CARBON	47K 5% 1/4W	R549	▲1-249-415-91	CARBON	680 5% 1/4W F
R366	1-247-713-11	CARBON	1K 5% 1/4W	R550	1-249-440-11	CARBON	82K 5% 1/4W
R368	1-249-429-11	CARBON	10K 5% 1/4W	**R551	1-249-437-11	CARBON	47K 5% 1/4W
R369	1-249-417-11	CARBON	1K 5% 1/4W	R552	1-247-713-11	CARBON	1K 5% 1/4W F
R371	1-249-429-11	CARBON	10K 5% 1/4W	R553	1-249-413-11	CARBON	470 5% 1/4W
R372	1-249-427-11	CARBON	6.8K 5% 1/4W	R554	1-249-429-11	CARBON	10K 5% 1/4W
R373	1-249-429-11	CARBON	10K 5% 1/4W	**R555	1-249-413-11	CARBON	470 5% 1/4W
R374	1-249-425-11	CARBON	4.7K 5% 1/4W	R556	1-216-371-00	METAL OXIDE	1.5 5% 2W F
R375	1-249-434-11	CARBON	27K 5% 1/4W	R557	1-259-871-15	CARBON	6.8M 5% 1/4W
R376	1-247-704-11	CARBON	220 5% 1/4W	R558	1-249-407-11	CARBON	150 5% 1/4W
R378	1-215-894-11	METAL OXIDE	2.2K 5% 2W F	R559	1-249-417-11	CARBON	1K 5% 1/4W
R379	1-215-894-11	METAL OXIDE	2.2K 5% 2W F	R560	1-247-719-11	CARBON	3.3K 5% 1/4W
R380	1-249-419-11	CARBON	1.5K 5% 1/4W F	R561	1-247-717-11	CARBON	2.2K 5% 1/4W
■R381	▲1-249-414-11	METAL OXIDE	1/6W	R562	1-215-880-00	METAL OXIDE	10 5% 2W F
R382	1-202-830-00	SOLID	10K 10% 1/2W	R563	1-249-436-11	CARBON	39K 5% 1/4W
R385	1-249-436-11	CARBON	39K 5% 1/4W	R564	1-249-433-11	CARBON	22K 5% 1/4W
R386	1-249-439-11	CARBON	68K 5% 1/4W	R565	1-249-441-11	CARBON	100K 5% 1/4W
R387	1-249-462-11	CARBON	22K 5% 1/4W	R566	1-247-895-00	CARBON	470K 5% 1/4W
R389	1-249-414-11	CARBON	560 5% 1/4W	R567	▲1-216-373-91	METAL OXIDE	2.2 5% 2W F
R390	1-247-721-11	CARBON	4.7K 5% 1/4W	R568	1-249-448-11	CARBON	1.2 5% 1/4W F
R391	1-249-441-11	CARBON	100K 5% 1/4W	R569	1-249-423-11	CARBON	3.3K 5% 1/4W
R392	1-249-429-11	CARBON	10K 5% 1/4W	R570	▲1-215-918-51	METAL OXIDE	1.5K 5% 3W F
R501	1-216-458-11	METAL OXIDE	1.8K 5% 2W F	R571	1-247-700-11	CARBON	100 5% 1/4W
R502	1-216-458-11	METAL OXIDE	1.8K 5% 2W F	R572	1-249-423-11	CARBON	3.3K 5% 1/4W
R503	1-249-405-11	CARBON	100 5% 1/4W	R573	1-247-722-11	CARBON	5.6K 5% 1/4W F
R504	1-249-414-11	CARBON	560 5% 1/4W	R574	1-216-345-11	METAL OXIDE	0.47 5% 1W F
R505	1-215-472-00	METAL	130K 1% 1/6W	R575	1-249-434-11	CARBON	27K 5% 1/4W
R506	1-247-702-11	CARBON	150 5% 1/4W	R576	1-249-389-11	CARBON	4.7 5% 1/4W F

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

**A****M2****M1**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R577	1-215-860-11	METAL OXIDE	33 5% 1W F				<u>TRANSFORMER</u>
R578	A1-215-880-91	METAL OXIDE	10 5% 1/2W F		T101	1-404-538-11	COIL
R579	A1-249-415-91	CARBON	1.680 5% 1/4W F		T201	A1-427-462-11	TRANSFORMER, SOUND OUTPUT
R580	A1-215-861-91	METAL OXIDE	47 5% 1W F		T299	A1-427-462-11	TRANSFORMER, SOUND OUTPUT
R581	1-247-708-11	CARBON	470 5% 1/4W F		T501	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE
R582	1-216-450-00	METAL OXIDE	82 5% 2W F		T502	A1-421-794-11	TRANSFORMER, FERRITE (PMT)
R583	1-216-450-00	METAL OXIDE	82 5% 2W F		T599	1-421-857-11	TRANSFORMER, FERRITE
R584	1-216-458-11	METAL OXIDE	1.8K 5% 2W F		T601	A1-421-357-31	TRANSFORMER, LINE FILTER
R585	1-216-458-11	METAL OXIDE	1.8K 5% 2W F				
R586	1-216-429-00	METAL OXIDE	270 5% 1W F				
R587	A1-216-434-91	METAL OXIDE	1.8K 5% 1W F				<u>THERMISTOR</u>
R588	1-247-696-11	CARBON	47 5% 1/4W				THP601A1-808-081-11 THERMISTOR, POSITIVE
R589	1-249-441-11	CARBON	100K 5% 1/4W				
R590	A1-216-365-91	METAL OXIDE	0.47 5% 2W F				
R592	A1-249-448-91	CARBON	41.2 5% 1/4W F				
R593	1-216-374-00	METAL OXIDE	2.7 5% 2W F				<u>TUNER</u>
R598	A1-249-389-91	CARBON	4.47 5% 1/4W F		TU101A1-463-771-11 TUNER SET (BTP-201A)		
R599	1-249-419-11	CARBON	1.5K 5% 1/4W				
R601	1-202-726-00	SOLID	3.9M 10% 1/2W				
R602	A1-205-741-11	WIREWOUND	1.8 5% 10W				
R603	1-247-717-11	CARBON	2.2K 5% 1/4W				<u>CRYSTAL</u>
R604	1-249-429-11	CARBON	10K 5% 1/4W				X001 1-567-192-11 OSCILLATOR, CERAMIC
R605	A1-205-702-11	WIREWOUND	220 5% 20W				X301 1-567-505-11 OSCILLATOR, CRYSTAL
R606	1-246-531-00	CARBON	270K 5% 1/4W				*****
R610	A1-217-7224-11	WIREWOUND	100 10% 2W F				*****
R611	1-215-872-11	METAL OXIDE	3.3K 5% 1W F				*1-624-991-11 M2 BOARD
R613	1-249-437-11	CARBON	47K 5% 1/4W				*****
R614	1-249-425-11	CARBON	4.7K 5% 1/4W				*1-566-045-11 PIN, CONNECTOR 6P
R615	A1-216-463-91	METAL OXIDE	12K 5% 2W F				*1-566-062-11 PIN, CONNECTOR 10P
R616	A1-247-719-51	CARBON	3.3K 5% 1/4W F				
R617	A1-249-401-91	CARBON	47 5% 1/4W F				
R618	1-247-895-00	CARBON	470K 5% 1/4W				<u>DIODE</u>
R619	1-216-482-11	METAL OXIDE	1.8K 5% 3W F				D804 8-719-911-19 DIODE 1SS119
R620	1-216-482-11	METAL OXIDE	1.8K 5% 3W F				
R621	1-216-482-11	METAL OXIDE	1.8K 5% 3W F				
R650	A1-205-702-11	WIREWOUND	220 5% 20W				
R1501	1-215-923-00	METAL OXIDE	10K 5% 3W F				<u>RESISTOR</u>
R1502	1-249-437-11	CARBON	47K 5% 1/4W				R801 1-249-429-11 CARBON 10K 5% 1/4W
R1504	1-249-409-11	CARBON	220 5% 1/4W				R802 1-249-430-11 CARBON 12K 5% 1/4W
							R803 1-249-428-11 CARBON 8.2K 5% 1/4W
<u>VARIABLE RESISTOR</u>							
RV201	1-238-015-11	RES, ADJ, CARBON	4.7K				
RV291	1-238-010-11	RES, ADJ, CARBON	330				
RV307	1-238-011-11	RES, ADJ, CARBON	470				
RV501	1-228-728-00	RES, ADJ, CERAMIC	CARBON 100K				
RV502	1-238-020-11	RES, ADJ, CARBON	100K				
RV504	1-238-017-11	RES, ADJ, CARBON	22K				
RV505	1-238-017-11	RES, ADJ, CARBON	22K				
RV506	1-238-019-21	RES, ADJ, CARBON	47K				
RV507	1-238-010-11	RES, ADJ, CARBON	330				
RV508	1-238-012-11	RES, ADJ, CARBON	1K				
<u>RELAY POWER</u>							
RY601A1-515-573-11	RELAY, POWER						
<u>SWITCH</u>							
S501	1-554-186-00	SWITCH, LEVER					
<u>SPARK GAP</u>							
SG501	1-519-422-11	GAP, SPARK					
<u>VARIABLE RESISTOR</u>							
RV801	1-238-024-11	RES, VAR, CARBON	20KX4				
RV802	1-238-024-11	RES, VAR, CARBON	20KX4				
RV803	1-238-024-11	RES, VAR, CARBON	20KX4				
RV804	1-238-024-11	RES, VAR, CARBON	20KX4				
<u>SWITCH</u>							
S809	1-554-303-21	SWITCH, KEY BOARD					
S810	1-554-303-21	SWITCH, KEY BOARD					
S811	1-554-303-21	SWITCH, KEY BOARD					
S812	1-571-400-11	SWITCH, ROTARY					
S813	1-571-400-11	SWITCH, ROTARY					
S814	1-571-400-11	SWITCH, ROTARY					
S815	1-571-400-11	SWITCH, ROTARY					
<u>M1 BOARD</u>							
*1-624-992-11	M1 BOARD						
<u>*****</u>							
*1-566-043-11	PIN, CONNECTOR 4P						
*1-566-050-11	PIN, CONNECTOR 11P						
*4-374-987-01	GUIDE, LIGHT						
*4-388-955-01	BRACKET (B), LIGHT GUIDE						

M1 C V

Ref. No. Part No. Description

DIODE

D801 8-719-101-08 DIODE SR108D  
\*4-368-519-00 HOLDER (3 GANG), LED; D801

D802 \*4-368-519-00 HOLDER (3 GANG), LED

D803 8-719-101-08 DIODE SR108D  
\*4-368-519-00 HOLDER (3 GANG), LED; D803

IC

IC801 8-741-901-43 IC SBX1483-51

SWITCH

S801 1-554-303-21 SWITCH, KEY BOARD  
S802 1-554-303-21 SWITCH, KEY BOARD  
S803 1-554-303-21 SWITCH, KEY BOARD  
S804 1-554-303-21 SWITCH, KEY BOARD  
S805 1-554-303-21 SWITCH, KEY BOARD  
S807 1-554-303-21 SWITCH, KEY BOARD  
S808 ~~A~~ 1-554-303-11 SWITCH, KEY BOARD  
S1801 1-554-303-21 SWITCH, KEY BOARD

\*\*\*\*\*  
\*A-1330-838-A C BOARD, COMPLETE  
\*\*\*\*\*

1-526-798-51 SOCKET, PICTURE TUBE  
\*4-379-160-01 COVER (REAR LID), CV  
\*4-379-167-01 COVER (MAIN), CV

CONNECTOR

C1 \*1-506-371-00 2P PLUG (L)  
C2 \*1-508-768-00 6P PLUG  
C3 \*1-566-058-11 PIN, CONNECTOR 6P

CAPACITOR

C701 1-129-714-00 FILM 0.01MF 10% 630V  
C702 1-162-115-00 CERAMIC 330PF 10% 2KV  
C704 1-124-915-11 ELECT 10MF 20% 63V  
C705 1-102-116-00 CERAMIC 680PF 10% 50V  
C706 1-102-116-00 CERAMIC 680PF 10% 50V  
C707 1-102-116-00 CERAMIC 680PF 10% 50V  
C708 1-102-110-00 CERAMIC 220PF 10% 50V  
C709 1-102-110-00 CERAMIC 220PF 10% 50V  
C710 1-102-110-00 CERAMIC 220PF 10% 50V  
C711 1-101-004-00 CERAMIC 0.01MF 50V  
C722 1-162-622-11 CERAMIC 330PF 10% 6.3KV

DIODE

D701 8-719-911-19 DIODE 1SS119  
D702 8-719-911-19 DIODE 1SS119  
D703 8-719-911-19 DIODE 1SS119

COIL

L701 1-408-450-31 INDUCTOR 47UH

TRANSISTOR

Q701 8-729-178-54 TRANSISTOR 2SC2785  
Q702 8-729-326-11 TRANSISTOR 2SC2611  
Q703 8-729-178-54 TRANSISTOR 2SC2785

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Ref. No. Part No. Description Remark

Q704 8-729-326-11 TRANSISTOR 2SC2611  
Q705 8-729-178-54 TRANSISTOR 2SC2785  
Q706 8-729-326-11 TRANSISTOR 2SC2611

RESISTOR

R701 1-202-838-00 SOLID 100K 10% 1/2W  
R702 1-216-397-11 METAL OXIDE 4.7 5% 3W  
R703 1-202-842-11 SOLID 220K 10% 1/2W  
R704 1-202-846-00 SOLID 470K 10% 1/2W  
R705 1-202-837-00 SOLID 82K 10% 1/2W  
R706 1-202-549-00 SOLID 100 10% 1/2W  
R707 1-202-842-11 SOLID 220K 10% 1/2W  
R708 1-202-824-00 SOLID 3.3K 10% 1/2W  
R709 1-202-824-00 SOLID 3.3K 10% 1/2W  
R710 1-202-359-21 SOLID 100 5% 1/4W  
R710 1-202-359-41 SOLID 100 10% 1/4W  
R711 1-249-409-11 CARBON 220 5% 1/4W  
R712 1-249-409-11 CARBON 220 5% 1/4W  
R713 1-202-824-00 SOLID 3.3K 10% 1/2W  
R714 1-249-421-11 CARBON 2.2K 5% 1/4W  
R715 1-249-422-11 CARBON 2.7K 5% 1/4W  
R716 1-249-414-11 CARBON 560 5% 1/4W  
R718 1-249-405-11 CARBON 100 5% 1/4W  
R719 1-249-418-11 CARBON 1.2K 5% 1/4W  
R720 1-249-413-11 CARBON 470 5% 1/4W

R722 ~~A~~ 1-206-692-61 METAL OXIDE 15K 5% 2W ~~REF~~  
R723 1-249-414-11 CARBON 560 5% 1/4W  
R725 1-249-422-11 CARBON 2.7K 5% 1/4W  
R726 1-249-405-11 CARBON 100 5% 1/4W  
R727 1-249-418-11 CARBON 1.2K 5% 1/4W  
R728 1-249-413-11 CARBON 470 5% 1/4W  
R729 1-249-409-11 CARBON 220 5% 1/4W  
R730 ~~A~~ 1-206-692-61 METAL OXIDE 15K 5% 2W ~~REF~~  
R732 1-249-411-11 CARBON 330 5% 1/4W  
R733 1-249-422-11 CARBON 2.7K 5% 1/4W

R734 1-249-425-11 CARBON 4.7K 5% 1/4W  
R735 1-249-405-11 CARBON 100 5% 1/4W  
R737 ~~A~~ 1-206-692-61 METAL OXIDE 15K 5% 2W ~~REF~~  
R738 1-202-848-00 SOLID 680K 10% 1/2W  
R739 1-202-838-00 SOLID 100K 10% 1/2W  
R740 1-202-842-11 SOLID 220K 10% 1/2W

VARIABLE RESISTOR

RV701 ~~A~~ 1-230-619-14 RES, ADJ, METAL GLAZE 10M  
RV702 1-230-629-71 RES, ADJ, CARBON 3.3K  
RV703 1-230-271-71 RES, ADJ, CARBON 4.7K  
RV704 1-230-629-71 RES, ADJ, CARBON 3.3K  
RV705 1-230-271-71 RES, ADJ, CARBON 4.7K

RV706 1-230-271-71 RES, ADJ, CARBON 4.7K  
RV707 1-230-631-71 RES, ADJ, CARBON 22K  
RV708 1-230-641-21 RES, ADJ, METAL GLAZE 2.2M  
\*\*\*\*\*

\*A-1347-022-A V BOARD, COMPLETE  
\*\*\*\*\*

\*4-376-533-01 CASE (MAIN), SHIELD  
\*4-376-535-01 CASE (BOTTOM), SHIELD

CAPACITOR

C1104 1-102-125-00 CERAMIC 0.0047MF 10% 50V  
C1105 1-126-101-11 ELECT 100MF 20% 16V



**V**

**U1**

**U**

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
R1127	1-249-427-11	CARBON	6.8K 5% 1/4W	C1406	1-101-004-00	CERAMIC	0.01MF 50V				
R1128	1-249-417-11	CARBON	1K 5% 1/4W	C1407	1-126-101-11	ELECT	100MF 20% 16V				
R1129	1-249-423-11	CARBON	3.3K 5% 1/4W	C1408	1-101-004-00	CERAMIC	0.01MF 50V				
R1130	1-249-427-11	CARBON	6.8K 5% 1/4W	C1409	1-126-101-11	ELECT	100MF 20% 16V				
R1131	1-249-417-11	CARBON	1K 5% 1/4W	C1411	1-123-875-11	ELECT	10MF 20% 50V				
R1133	1-249-417-11	CARBON	1K 5% 1/4W	C1413	1-123-875-11	ELECT	10MF 20% 50V				
R1134	1-249-422-11	CARBON	2.7K 5% 1/4W	C1414	1-102-963-00	CERAMIC	33PF 5% 50V				
R1135	1-249-437-11	CARBON	47K 5% 1/4W	C1415	1-106-359-00	MYLAR	0.0047MF 10% 100V				
R1137	1-249-401-11	CARBON	47 5% 1/4W	C1416	1-124-477-11	ELECT	47MF 20% 16V				
R1138	1-249-437-11	CARBON	47K 5% 1/4W	C1417	1-106-343-00	MYLAR	0.001MF 10% 100V				
R1139	1-249-428-11	CARBON	8.2K 5% 1/4W	C1418	1-124-477-11	ELECT	47MF 20% 16V				
R1140	1-249-427-11	CARBON	6.8K 5% 1/4W	C1419	1-102-963-00	CERAMIC	33PF 5% 50V				
<b>TRANSFORMER</b>											
T1101	1-404-607-11	COIL		C1420	1-102-963-00	CERAMIC	33PF 5% 50V				
T1102	1-404-607-11	COIL		C1423	1-108-383-00	MYLAR	0.033MF 10% 100V				
<b>CONNECTOR</b>											
V1	*1-566-057-11	PIN, CONNECTOR 5P		C1424	1-106-367-00	MYLAR	0.01MF 10% 100V				
V2	*1-566-061-11	PIN, CONNECTOR 9P		C1426	1-108-383-00	MYLAR	0.033MF 10% 100V				
V3	*1-566-060-11	PIN, CONNECTOR 8P		C1427	1-106-367-00	MYLAR	0.01MF 10% 100V				
*****											
*1-625-169-11 U1 BOARD											
*****											
1-565-442-11 PLUG, CONNECTOR 4P											
*1-566-041-11 PIN, CONNECTOR 2P											
<b>CAPACITOR</b>											
C013	1-124-477-11	ELECT	47MF 20% 25V	C1432	1-124-908-11	ELECT	22MF 20% 50V				
<b>IC</b>											
IC001	8-719-927-74	PC817-C		C1433	1-124-963-11	ELECT	33MF 20% 16V				
<b>TRANSISTOR</b>											
Q008	8-729-117-54	TRANSISTOR 2SA1175		C1434	1-124-499-11	ELECT	1MF 20% 50V				
Q009	8-729-117-54	TRANSISTOR 2SA1175		C1435	1-124-499-11	ELECT	1MF 20% 50V				
*****											
<b>RESISTOR</b>											
R058	1-249-426-11	CARBON	5.6K 5% 1/4W	C1436	1-123-875-11	ELECT	10MF 20% 50V				
R059	1-249-429-11	CARBON	10K 5% 1/4W	C1437	1-123-875-11	ELECT	10MF 20% 50V				
R060	1-249-417-11	CARBON	1K 5% 1/4W	C1438	1-123-875-11	ELECT	10MF 20% 50V				
R061	1-246-529-00	CARBON	220K 5% 1/4W	C1439	1-123-875-11	ELECT	10MF 20% 50V				
R062	1-246-529-00	CARBON	220K 5% 1/4W	C1440	1-124-908-11	ELECT	22MF 20% 50V				
R063	1-249-421-11	CARBON	2.2K 5% 1/4W	C1441	1-123-875-11	ELECT	10MF 20% 50V				
*****											
*A-1394-131-A U BOARD, COMPLETE											
*****											
<b>CAPACITOR</b>											
C1401	1-124-604-00	ELECT	330MF 20% 10V	<b>IC</b>							
C1402	1-124-604-00	ELECT	330MF 20% 10V	IC1401	1-235-783-11	INSULATED MODULE, VIDEO(IVM-1)					
C1403	1-124-963-11	ELECT	33MF 20% 16V	IC1402	1-235-784-11	INSULATED MODULE, AUDIO(IAM-1)					
C1404	1-124-119-00	ELECT	330MF 20% 16V	IC1403	1-235-784-11	INSULATED MODULE, AUDIO(IAM-1)					
C1405	1-124-119-00	ELECT	330MF 20% 16V	IC1404	1-235-784-11	INSULATED MODULE, AUDIO(IAM-1)					
<b>DIODE</b>											
D1401	8-719-109-92	DIODE RD6.2ES-B1									
D1430	8-719-911-19	DIODE 1SS119									
D1432	8-719-911-19	DIODE 1SS119									



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Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
IC1405	1-235-784-11	INSULATED MODULE, AUDIO(IAM-1)				R1434	1-249-468-11	CARBON	82K	5%	1/4W
IC1407	8-759-140-66	IC UPD4066BC				R1435	1-246-537-00	CARBON	470K	5%	1/4W
IC1408	8-759-132-40	IC UPC324C				R1436	1-249-468-11	CARBON	82K	5%	1/4W
IC1410	8-759-940-88	IC MB3110A				R1437	1-246-537-00	CARBON	470K	5%	1/4W
						R1438	1-249-468-11	CARBON	82K	5%	1/4W
		<u>JACK</u>				R1439	1-249-432-11	CARBON	18K	5%	1/4W
J1401	1-563-303-21	JACK BLOCK, PIN 3P				R1440	1-249-432-11	CARBON	18K	5%	1/4W
J1402	1-563-303-11	JACK BLOCK, PIN 3P				R1441	1-249-435-11	CARBON	33K	5%	1/4W
J1403	1-563-302-11	JACK BLOCK, PIN 2P				R1442	1-249-429-11	CARBON	10K	5%	1/4W
						R1443	1-247-726-11	CARBON	33K	5%	1/4W
		<u>TRANSISTOR</u>				R1444	1-249-435-11	CARBON	33K	5%	1/4W
Q1401	8-729-178-54	TRANSISTOR 2SC2785				R1445	1-249-426-11	CARBON	5.6K	5%	1/4W
Q1402	8-729-178-54	TRANSISTOR 2SC2785				R1446	1-249-426-11	CARBON	5.6K	5%	1/4W
Q1431	8-729-178-54	TRANSISTOR 2SC2785				R1447 $\Delta$ 1-249-391-91	1-249-391-91	CARBON	6.8	5%	1/4W F
Q1432	8-729-178-54	TRANSISTOR 2SC2785				R1448 $\Delta$ 1-249-391-91	1-249-391-91	CARBON	6.8	5%	1/4W F
Q1433	8-729-178-54	TRANSISTOR 2SC2785				R1449 $\Delta$ 1-249-391-91	1-249-391-91	CARBON	6.8	5%	1/4W F
Q1434	8-729-178-54	TRANSISTOR 2SC2785				R1450 $\Delta$ 1-249-391-91	1-249-391-91	CARBON	6.8	5%	1/4W F
Q1435	8-729-178-54	TRANSISTOR 2SC2785				R1455	1-249-405-11	CARBON	100	5%	1/4W
Q1436	8-729-178-54	TRANSISTOR 2SC2785				R1456	1-247-700-11	CARBON	100	5%	1/4W
Q1437	8-729-178-54	TRANSISTOR 2SC2785				R1457	1-247-713-11	CARBON	1K	5%	1/4W
Q1438	8-729-178-54	TRANSISTOR 2SC2785				R1458	1-249-417-11	CARBON	1K	5%	1/4W
Q1439	8-729-117-54	TRANSISTOR 2SA1175				R1459	1-249-466-11	CARBON	56K	5%	1/4W
Q1440	8-729-117-54	TRANSISTOR 2SA1175				R1460	1-249-466-11	CARBON	56K	5%	1/4W
Q1441	8-729-117-54	TRANSISTOR 2SA1175				R1461	1-249-466-11	CARBON	56K	5%	1/4W
Q1442	8-729-117-54	TRANSISTOR 2SA1175				R1462	1-249-438-11	CARBON	56K	5%	1/4W
Q1443	8-729-117-54	TRANSISTOR 2SA1175				R1463	1-249-431-11	CARBON	15K	5%	1/4W
Q1444	8-729-900-89	TRANSISTOR DTC144ES				R1464	1-249-431-11	CARBON	15K	5%	1/4W
Q1445	8-729-178-54	TRANSISTOR 2SC2785				R1465	1-249-429-11	CARBON	10K	5%	1/4W
Q1446	8-729-115-30	TRANSISTOR 2SK105A				R1466	1-249-433-11	CARBON	22K	5%	1/4W
Q1447	8-729-900-89	TRANSISTOR DTC144ES				R1467	1-249-433-11	CARBON	22K	5%	1/4W
		<u>RESISTOR</u>				R1468	1-249-462-11	CARBON	22K	5%	1/4W
R1401	1-247-699-11	CARBON	82	5%	1/4W	R1469	1-249-433-11	CARBON	22K	5%	1/4W
R1402	1-247-712-11	CARBON	820	5%	1/4W	R1470	1-249-433-11	CARBON	22K	5%	1/4W
R1403	1-247-699-11	CARBON	82	5%	1/4W	R1471	1-249-433-11	CARBON	22K	5%	1/4W
R1404	1-247-712-11	CARBON	820	5%	1/4W	R1472	1-249-462-11	CARBON	22K	5%	1/4W
R1405	1-249-410-11	CARBON	270	5%	1/4W						
R1406	1-249-416-11	CARBON	820	5%	1/4W	R1473	1-249-425-11	CARBON	4.7K	5%	1/4W
R1407	1-249-433-11	CARBON	22K	5%	1/4W	R1474	1-249-425-11	CARBON	4.7K	5%	1/4W
R1408	1-249-425-11	CARBON	4.7K	5%	1/4W	R1475	1-249-417-11	CARBON	1K	5%	1/4W
R1409 $\Delta$ 1-249-391-91	1-249-391-91	CARBON	6.8	5%	1/4W F	R1477	1-249-405-11	CARBON	100	5%	1/4W F
R1410	1-249-421-11	CARBON	2.2K	5%	1/4W	R1478	1-249-433-11	CARBON	22K	5%	1/4W
R1411 $\Delta$ 1-249-391-91	1-249-391-91	CARBON	6.8	5%	1/4W F	R1479	1-249-434-11	CARBON	27K	5%	1/4W
R1412	1-249-405-11	CARBON	100	5%	1/4W	R1480	1-249-463-11	CARBON	27K	5%	1/4W
R1413	1-249-405-11	CARBON	100	5%	1/4W	R1481	1-249-462-11	CARBON	22K	5%	1/4W
R1416	1-249-469-11	CARBON	100K	5%	1/4W	R1482	1-247-895-00	CARBON	470K	5%	1/4W
R1417	1-249-469-11	CARBON	100K	5%	1/4W	R1483	1-249-462-11	CARBON	22K	5%	1/4W
R1418	1-249-462-11	CARBON	22K	5%	1/4W	R1484	1-249-429-11	CARBON	10K	5%	1/4W
R1419	1-247-700-11	CARBON	100	5%	1/4W	R1485	1-249-425-11	CARBON	4.7K	5%	1/4W
R1421	1-249-429-11	CARBON	10K	5%	1/4W	R1486	1-249-423-11	CARBON	3.3K	5%	1/4W
R1422	1-249-441-11	CARBON	100K	5%	1/4W	R1487	1-247-893-11	CARBON	390K	5%	1/4W
R1423	1-249-441-11	CARBON	100K	5%	1/4W	R1488	1-249-425-11	CARBON	4.7K	5%	1/4W
R1424	1-249-425-11	CARBON	4.7K	5%	1/4W	R1489	1-249-423-11	CARBON	3.3K	5%	1/4W
R1425	1-249-433-11	CARBON	22K	5%	1/4W	R1490	1-247-893-11	CARBON	390K	5%	1/4W
R1426	1-249-433-11	CARBON	22K	5%	1/4W	R1491	1-249-425-11	CARBON	4.7K	5%	1/4W
R1427	1-249-429-11	CARBON	10K	5%	1/4W	R1492	1-246-529-00	CARBON	220K	5%	1/4W
R1428	1-249-423-11	CARBON	3.3K	5%	1/4W	R1493	1-247-725-11	CARBON	10K	5%	1/4W
R1429	1-249-423-11	CARBON	3.3K	5%	1/4W	R1494	1-249-425-11	CARBON	4.7K	5%	1/4W
R1430 $\Delta$ 1-202-726-91	SOLID	3.9M	10%	1/2W	R1495	1-247-725-11	CARBON	10K	5%	1/4W	
R1431	1-246-537-00	CARBON	470K	5%	1/4W	R1496	1-247-700-11	CARBON	100	5%	1/4W
R1432	1-249-468-11	CARBON	82K	5%	1/4W	R1497	1-249-441-11	CARBON	100K	5%	1/4W
R1433	1-246-537-00	CARBON	470K	5%	1/4W	R1500	1-249-417-11	CARBON	1K	5%	1/4W
						R1501	1-249-417-11	CARBON	1K	5%	1/4W
						R1503	1-249-463-11	CARBON	27K	5%	1/4W
						R1504	1-249-463-11	CARBON	27K	5%	1/4W
						R1505	1-249-391-11	CARBON	6.8	5%	1/4W F
						R1506	1-249-391-11	CARBON	6.8	5%	1/4W F

U

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Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
R1507	1-246-527-00	CARBON	180K 5% 1/4W
R1508	▲1-249-391-91	CARBON	6.8 5% 1/4W F
R1509	▲1-249-391-91	CARBON	6.8 5% 1/4W F
R1510	1-247-713-11	CARBON	1K 5% 1/4W
R1511	1-249-469-11	CARBON	100K 5% 1/4W
R1512	1-247-713-11	CARBON	1K 5% 1/4W
R1513	1-249-469-11	CARBON	100K 5% 1/4W
R1514	1-249-435-11	CARBON	33K 5% 1/4W
R1515	1-249-435-11	CARBON	33K 5% 1/4W
R1516	1-249-405-11	CARBON	100 5% 1/4W
R1517	1-249-405-11	CARBON	100 5% 1/4W
R1518	1-249-434-11	CARBON	27K 5% 1/4W
R1519	1-249-469-11	CARBON	100K 5% 1/4W
R1520	1-249-469-11	CARBON	100K 5% 1/4W
R1521	1-249-441-11	CARBON	100K 5% 1/4W
R1522	1-249-441-11	CARBON	100K 5% 1/4W
R1527	1-249-425-11	CARBON	4.7K 5% 1/4W
R1528	1-249-441-11	CARBON	100K 5% 1/4W
R1534	1-249-428-11	CARBON	8.2K 5% 1/4W
R1535	1-249-417-11	CARBON	1K 5% 1/4W
R1536	1-249-405-11	CARBON	100 5% 1/4W
R1540	1-249-433-11	CARBON	22K 5% 1/4W
R1543	1-249-437-11	CARBON	47K 5% 1/4W
R1545	1-249-433-11	CARBON	22K 5% 1/4W
R1546	1-249-405-11	CARBON	100 5% 1/4W
R1547	1-247-700-11	CARBON	100 5% 1/4W

CONNECTOR

U2	*1-566-055-11	PIN, CONNECTOR 3P
U3	*1-566-059-11	PIN, CONNECTOR 7P
U4	*1-566-060-11	PIN, CONNECTOR 8P
U5	*1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P

\*\*\*\*\*

MISCELLANEOUS  
\*\*\*\*\*

▲1-230-940-21	RESISTOR ASSY, HIGH-VOLTAGE
▲1-417-159-11	SELECTOR, ANTENNA
▲1-426-350-21	COIL, DEMAGNETIZATION
▲1-451-275-11	DÉFLECTION YOKE (SY-158)
1-452-032-00	MAGNET, DISK; 10MM Ø
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø
1-503-476-11	SPEAKER
1-529-062-11	BUZZER
▲1-559-396-11	CORD, POWER
T504 ▲1-439-372-13	TRANSFORMER ASSY, FLYBACK
V901 ▲8-737-753-05	PICTURE TUBE (A68JMT50X)

\*\*\*\*\*

ACCESSORIES AND PACKING MATERIALS  
\*\*\*\*\*

Part No.	Description	Remark
A-1470-833-A	COMMANDER ASSY (RM-754)	
▲1-513-379-00	CONVERTER (EAC-25)(CND ONLY)	
1-562-443-11	CONNECTOR, ANTENNA (US ONLY)	
4-482-589-21	MANUAL, INSTRUCTION	
4-482-589-31	MANUAL, INSTRUCTION (CND ONLY)	
*4-380-432-01	BAG, PROTECTION	
*4-388-470-01	INDIVIDUAL CARTON	
*4-388-471-01	CUSHION (UPPER) (ASSY)	
*4-388-472-01	CUSHION (LOWER) (ASSY)	

Sony Corporation  
TV Group

9-964-044-01

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Exploded view diagram of a circuit board assembly labeled 6-3. CIRCUIT BOARDS LOCATION. The diagram shows a housing with various components labeled:

- M1**: A component on the left side of the housing.
- V**: A component on the top left side of the housing.
- M2**: A component on the top right side of the housing.
- C**: A component on the right side of the housing.
- U**: A component at the bottom right.
- A**: A component at the bottom right, below U.
- B**: A component at the bottom left.
- U1**: A component at the bottom center.

The diagram illustrates the spatial relationships between these components within the housing structure.

**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics.
- All resistors are in ohms.
- $\Delta$  : internal component.
-  : nonflammable resistor.
-  : adjustment for repair.
- Indication of resistance, which does not have one for rating electrical power is as follows.

Pitch: 5 mm  
Rating electrical power: 1/4 W

### **Reference information**

RESISTOR	:	TRV	METAL FILM
	:	RC	SOLID
	:	FPRD	NONFLAMMABLE CARBON
	:	FUSE	NONFLAMMABLE FUSIBLE
	:	RW	NONFLAMMABLE WIREWOUND
	:	RB	NONFLAMMABLE CEMENT
COIL	:	LF-8L	MICRO INDUCTOR
CAPACITOR	:	TA	TANTALUM
	:	PS	STYROL
	:	PP	POLYPROPYLENE
	:	PT	MYLAR
	:	MPS	METALIZED POLYESTER
	:	MPP	METALIZED POLYPROPYLENE
	:	ALB	BIPOLAR
	:	ALT	HIGH TEMPERATURE
	:	ALP	HIGH RIPPLE

• **ALR - HIGH RIFLE**

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by **█** in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by **█**, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by **█** and repeat the adjustment until the specified value is achieved. (Refer to R381 adjustment on Page 15, 16.)  
When replacing the part in below table, be sure to perform the related adjustment.  
**(HOLD DOWN)**

Part replaced ( <input checked="" type="checkbox"/> )	Adjustment ( <input checked="" type="checkbox"/> )
IC301, PM501, R512, R381, R382, R378, R379, R344	R381

- Voltages are dc with respect to ground unless otherwise noted.

- All voltages are in V.
- Readings are taken with a  $10\text{ M}\Omega$  digital multimeter.

- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal produc-

- Voltage variations may be noted due to normal production tolerances.
-  : B+ bus.

- The hold down check point is pin 4 of A-14 connector.
-  : signal path.

**Note: The components identified by shading and mark**

**⚠ are critical for safety. Replace only with part number specified.**

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Note: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro

l'empêcher que par une pièce portant le numéro spécifié.

-3|-

**1, 202 SI4102**

**CXA1013AS**

**AN5521**

**WAVEFORMS**

31	32	33
110 Vp-p (H)	110 Vp-p (H)	30 Vp-p (V)

**WAVEFORMS**

2	3	4	5	6	7
2 Vp-p (H)	2 Vp-p (H)	2 Vp-p (H)	2 Vp-p (H)	2 Vp-p (H)	2 Vp-p (H)
5.8 Vp-p (H)	4.9 Vp-p (H)	6 Vp-p (H)	2 Vp-p (H)		
3.8 Vp-p (V)	4 Vp-p (V)	60 Vp-p (V)	0.8 Vp-p (V)		
7.5 Vp-p (V)	18 Vp-p (V)	4.2 Vp-p (H)	1100 Vp-p (H)		
10 Vp-p (V)	5.4 Vp-p (H)	5 Vp-p (V)	4.0 Vp-p (H)		

